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JUL 22 1964

CURRENT SERIAL RECORDS

**WATER SUPPLY OUTLOOK**  
and  
**FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS**  
for  
**NEVADA**

UNITED STATES DEPARTMENT of AGRICULTURE---SOIL CONSERVATION SERVICE,  
and  
NEVADA DEPARTMENT of CONSERVATION and NATURAL RESOURCES  
DIVISION of WATER RESOURCES

Data included in this report were obtained by the agencies named above in cooperation with the Federal, State and private organizations listed on the last page of this report.

AS OF  
**MAR. 1, 1964**

# UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

## *To Recipients of Water Supply Outlook Reports:*

The climate of the cultivated and populated areas of the West is characterized by relatively dry summer months. Such precipitation as occurs falls mostly in the winter and early spring months when it is of little immediate benefit to growing crops. Most of this precipitation falls as mountain snow which stays on the ground for months, melting later to sustain streamflow during the period of greatest demand during late spring and summer. Thus, nature provides in mountain snow an imposing water storage facility.

The amount of water stored in mountain snow varies from place to place as well as from year to year and accordingly, so does the runoff of the streams. The best seasonal management of variable western water supplies results from advance estimates of the streamflow.

A snow survey consists of a series of about ten samples taken with specially designed snow sampling equipment along a permanently marked line, up to 1000 feet in length, called a snow course. The use of snow sampling equipment provides snow depth and water equivalent values for each sampling point. The average of these values is reported as the snow survey measurement for a snow course.

Snow surveys are made monthly or semi-monthly beginning in January or February and continue through the snow season until April, May or June. Currently more than 1400 western snow courses are measured each year. These measurements furnish the key data for water supply forecasts.

Streamflow forecasts are obtained by a comparison of total or maximum snow accumulation, as measured by snow water equivalent, to the subsequent spring and summer or snowmelt season runoff over a period of years. The snow water equivalent measured in selected snow courses provides most of the index to the streamflow forecast for the following season. More accurate forecasts are usually obtained when other factors such as soil moisture, base flow and spring precipitation are considered and included in the forecast procedure. Early season forecasts assume average climatic conditions through the snowmelt season.

Listed below are the Federal-State-Private Cooperative Snow Survey and Water Supply Forecast reports available for the West which contain detailed information on snow survey measurements, streamflow forecasts, reservoir storage, soil moisture and other guide data to water management and conservation decisions. Soil Conservation Service Reports may be secured from Water Supply Forecasting Unit, Soil Conservation Service, P.O. Box 2807, Portland, Oregon 97208.

### PUBLISHED BY SOIL CONSERVATION SERVICE

<u>REPORTS</u>	<u>ISSUED</u>	<u>LOCATION</u>	<u>COOPERATING WITH</u>
<b>RIVER BASINS</b>			
WESTERN UNITED STATES _____	MONTHLY (FEB.-MAY) _____	PORTLAND, OREGON _____	ALL COOPERATORS
BASIC DATA SUMMARY _____	OCTOBER 1 _____	PORTLAND, OREGON _____	ALL COOPERATORS
<b>STATES</b>			
ALASKA _____	MONTHLY (MAR.-MAY) _____	PALMER, ALASKA _____	ALASKA S.C.D.
ARIZONA _____	SEMI-MONTHLY (JAN.15 - APR.1) _____	PHOENIX, ARIZONA _____	SALT R. VALLEY WATER USERS ASSOC. ARIZ. AGR. EXP. STATION
COLORADO AND NEW MEXICO _____	MONTHLY (FEB.-MAY) _____	FORT COLLINS, COLORADO _____	COLO. STATE UNIVERSITY COLO. STATE ENGINEER N. MEX. STATE ENGINEER
IDAHO _____	MONTHLY (JAN.-JUNE) _____	BOISE, IDAHO _____	IDAHO STATE RECLAMATION ENGINEER
MONTANA _____	MONTHLY (JAN.-JUNE) _____	BOZEMAN, MONTANA _____	MONT. AGR. EXP. STATION
NEVADA _____	MONTHLY (JAN.-MAY) _____	RENO, NEVADA _____	NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES - DIVISION OF WATER RESOURCES
OREGON _____	MONTHLY (JAN.-JUNE) _____	PORTLAND, OREGON _____	OREG. STATE UNIVERSITY OREGON STATE ENGINEER
UTAH _____	MONTHLY (JAN.-JUNE) _____	SALT LAKE CITY, UTAH _____	UTAH STATE ENGINEER
WASHINGTON _____	MONTHLY (FEB.-JUNE) _____	SPOKANE, WASHINGTON _____	WN. STATE DEPT. OF CONSERVATION
WYOMING _____	MONTHLY (FEB.-JUNE) _____	CASPER, WYOMING _____	WYOMING STATE ENGINEER

### PUBLISHED BY OTHER AGENCIES

<u>REPORTS</u>	<u>ISSUED</u>	<u>AGENCY</u>
BRITISH COLUMBIA _____	MONTHLY (FEB.-JUNE) _____	WATER RESOURCES SERVICE, DEPT. OF LANDS, FOREST AND WATER RESOURCES, PARLIAMENT BLDG., VICTORIA, B.C., CANADA
CALIFORNIA _____	MONTHLY (FEB.-MAY) _____	CALIF. DEPT. OF WATER RESOURCES, P.O. BOX 388, SACRAMENTO, CALIF.



**WATER SUPPLY OUTLOOK**  
and  
**FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS**  
**for**  
**NEVADA**

*Report prepared by*

**MANES BARTON**

*and*

**ROY E. MALSOR, JR.**

SOIL CONSERVATION SERVICE  
1479 SOUTH WELLS AVENUE  
RENO, NEVADA

**MARCH 8, 1964**

*Issued by*

**CHARLES W. CLEARY, JR.**

STATE CONSERVATIONIST  
SOIL CONSERVATION SERVICE  
RENO, NEVADA

**HUGH A. SHAMBERGER**

DIRECTOR  
DEPARTMENT OF CONSERVATION AND  
NATURAL RESOURCES  
CARSON CITY, NEVADA



# INDEX TO NEVADA SNOW COURSES ( By Basins )

NUMBER	NAME	SEC.	TWP.	RGE.	ELEV.
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## Snake River Basin

Snake River					
15H1MA	BEAR CREEK	31	46N	58E	7800
15H4MP*	BIG BENO	30	45N	56E	6700
15H2	FOX CREEK	33	46N	58E	6800
15H13	GOAT CREEK	31	46N	60E	8800
15H5*	GOLD CREEK	31	45N	56E	6600
15H15A	HUMMINGBIRD SPRINGS	6	45N	60E	8945
14H1	JACKS CREEK	6	42N	62E	7000
15H14	POLE CREEK RANGER STATION	13	46N	59E	8330
15H18a	RED POINT	15	47N	61E	7940
15H3A	76 CREEK	6	44N	58E	7100
15H19a	STAG MTN.	29	40N	50E	7700

## Owyhee River

15H4MP	BIG BENO	30	45N	56E	6700
17H2*	BUCKSKIN, LOWER	25	45N	39E	6700
17H1*	BUCKSKIN, UPPER	11	45N	39E	7200
16H5a	COLUMBIA BASIN	31	44N	53E	6650
16H7*	FRY CANYON	31	43N	54E	6700
15H5	GOLD CREEK	31	45N	56E	6600
17H4*	GRANITE PEAK	22	44N	39E	7800
16H1M	JACK CREEK, LOWER	18	42N	53E	6800
16H2A	JACK CREEK, UPPER	9	42N	53E	7250
16H4	JACKS PEAK	28	42N	53E	8420
16H5	LAUREL DRAW	20	45N	53E	6700
17G4a	LOUSE CANYON (OREG.)	27	40S	44E	8440
17H3*	MARTIN CREEK	18	44N	40E	6700
15H6MP*	RODEO FLAT	36	43N	53E	6800
15H19a*	STAG MTN.	29	40N	50E	7700
15H9MP	TAYLOR CANYON	35	39N	53E	6200
16H7a*	TOE JAM	29	40N	50E	7700
15H8*	TREMEWAN RANCH	9	39N	55E	5700

## Interior

### Upper Humboldt River

15J17a	AMERICAN BEAUTY	32	31N	58E	7800
15H1MA	BEAR CREEK	31	46N	58E	7800
15H4MP*	BIG BENO	30	45N	56E	6700
16H5a	COLUMBIA BASIN	31	44N	53E	6650
15J12A	CORRAL CANYON	27	28N	57E	8500
15J1MP	DORSEY BASIN	28	35N	60E	8100
15J3	ORY CREEK	5	34N	60E	6500
15H2*	FOX CREEK	33	46N	58E	6800
15H7	FRY CANYON	31	43N	54E	6700
15H5*	GOLD CREEK	31	45N	56E	6600
15J9MP	GREEN MOUNTAIN	23	29N	57E	8000
15J10	HARRISON PASS #1	9	28N	57E	6600
15J11	HARRISON PASS #2	16	28N	57E	7400
16H1M*	JACK CREEK, LOWER	18	42N	53E	6800
16H2A*	JACK CREEK, UPPER	9	42N	53E	7250
16H4*	JACKS PEAK	28	42N	53E	8420
15J4	LAMOILLE #1	15	32N	58E	7100
15J5	LAMOILLE #2	14	32N	58E	7300
15J6M	LAMOILLE #3	24	32N	58E	7700
15J7	LAMOILLE #4	19	32N	59E	8000
15J8P	LAMOILLE #5	31	32N	59E	8700
15J16a	ROBINSON LAKE	23	33N	59E	9200
15H6MP	RODEO FLAT	36	43N	53E	6800
15J2	RYAN RANCH	1	34N	59E	5800
15H19a*	STAG MTN.	29	40N	50E	7700
15H3A*	76 CREEK	6	44N	58E	7100
15H9MP*	TAYLOR CANYON	35	39N	53E	6200
16H7a*	TOE JAM	29	40N	50E	7700
15H8*	TREMEWAN RANCH	9	39N	55E	5700
15H10P	TROUT CREEK, LOWER	28	37N	61E	6900
15H11A	TROUT CREEK, UPPER	4	36N	61E	8500

### Lower Humboldt River

17K1	BIG CREEK CAMP GROUND	10	17N	43E	6600
17K2	BIG CREEK MINE	23	17N	43E	7600
17K3	BIG CREEK, UPPER	26	17N	43E	8000
17H2	BUCKSKIN, LOWER	25	45N	39E	6700
17H1	BUCKSKIN, UPPER	11	45N	39E	7200
17J2	GOLCONOA #2	22	35N	39E	6000
17H4	GRANITE PEAK	22	44N	39E	7800
17H5	LAMANCE CREEK	13	42N	38E	6000
17L1	LOWER CORRAL	12	11N	40E	7500
17H3	MARTIN CREEK	18	44N	40E	6700
16H3AP	MIOAS	18	39N	46E	7200
16H7	TOE JAM	29	40N	50E	7700
17L2	UPPER CORRAL	20	11N	41E	8500

### Eastern Nevada

14L1	BAKER #1	29	13N	69E	7950
14L2	BAKER #2	30	13N	69E	8950
14L3	BAKER #3	25	13N	68E	9250
14K2	BERRY CREEK	26	17N	65E	9100
14K1	BIRO CREEK	34	19N	65E	7500
15J13	CAVE CREEK	25	27N	57E	7500
15J14	HAGER CANYON	34	27N	57E	8000
15J15	HOLE-IN-MTN	6	35N	61E	7900
14K8	KALAMAZOO CREEK	34	20N	65E	7400
14K3	MURRAY SUMMIT	25	16N	62E	7250
15K1	ROBINSON SUMMIT	34	18N	61E	7600
14K7	SILVER CREEK #2	30	16N	69E	8000
14K5	WARO MOUNTAIN #2	25	15N	62E	7875
15L1*	WHITE RIVER #1	31	13N	59E	7400

### Central Great Basin

18M2	CAMPITO MTN. (CAL.)	19	5S	35E	10200
15N2	CLARK CANYON	8	19S	56E	9000
18G5a*	GENIO CREEK (OREG.)	14	41S	34E	6000
18M1	MONTGOMERY PASS	4	1N	33E	7100
18M3a	PINCNOT CREEK	28	1N	33E	9300
18M4a	PIUTE PASS (CAL.)	33	4S	33E	11700
15N1	TROUGH SPRINGS	23	18S	55E	8500

NUMBER	NAME	SEC.	TWP.	RGE.	ELEV.
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## NORTHERN GREAT BASIN

19H1	8ALO MOUNTAIN	17	45N	21E	8720
20H5	BARBER CREEK	23	39N	18E	6500
20H6	CEGAR PASS	12	43N	14E	7100
19H1	DISASTER PEAK	8	47N	34E	6500
20H3a	DISMAL SWAMP (CAL.)	31	48N	22E	7000
20H7	EAGLE PEAK	35	40N	15E	7200
19H3	49-MTN	7	42N	19E	8000
19H2	HAYS CANYON	1	39N	18E	6400
18H2	LEONARDO CREEK	13	42N	28E	5900
19H4a	LITTLE BALLY MTN	8	45N	19E	6000
17G5a	OREGON CANYON (OREG.)	9	40S	40E	7240
17H6a	QUINN RIDGE	9	47N	41E	6300
20H4	RESERVATION CREEK	12	48N	15E	5900
18G5a	TROUT CREEK (OREG.)	10	41S	38E	7800

## Lake Tahoe

19L14	OAGGETTS PASS	19	13N	19E	7350
20L5	ECNO SUMMIT (CAL.)	6	11N	18E	7450
19L2	FREEL BENCN (CAL.)	36	12N	18E	7300
19K8	GLENBROOK #2	13	14N	18E	6900
19L3M	HAGANS MEADOW (CAL.)	36	12N	18E	8000
20L4	LAKE LUCILLE (CAL.)	28	12N	17E	8200
19K4M	MARLETTE LAKE	13	15N	18E	8000
19K2*	MT. ROSE	7	17N	19E	9000
20L3	RICHAROSONS #2 (CAL.)	6	12N	18E	6500
20L1	RUBICON #1 (CAL.)	8	13N	17E	8100
20L2	RUBICON #2 (CAL.)	6	13N	17E	7500
20K16	TANOE CITY (CAL.)	8	15N	17E	6250
19L1	UPPER TRUCKEE (CAL.)	21	12N	18E	6400
20K17M	WARO CREEK (CAL.)	21	15N	16E	7000

## Truckee River

20K14	BOCA #2 (CAL.)	28	18N	17E	5900
20K11	DOONER LAKE #1 (CAL.)	14	17N	15E	5950
20K21	DOONER PARK #2 (CAL.)	3	16N	16E	6000
20K10*	DOONER SUMMIT (CAL.)	25	17N	14E	6900
20K7*	FOROYCE LAKE (CAL.)	34	18N	13E	6500
20K8	FURNACE FLAT (CAL.)	10	17N	13E	6700
20K4M	INDEPENDENCE CAMP (CAL.)	34	19N	15E	7000
20K3	INDEPENDENCE CREEK (CAL.)	14	19N	15E	6500
20K5	INDEPENDENCE LAKE (CAL.)	9	18N	15E	8450
19K3	LITTLE VALLEY	17	16N	19E	6300
19K2	MT. ROSE	7	17N	19E	9000
20K6	SAGE HEN CREEK (CAL.)	7	18N	16E	6500
20K19	SOUAW VALLEY #2 (CAL.)	6	15N	16E	7500
20K16*	TAHOE CITY (CAL.)	6	15N	17E	6250
20K13M	TRUCKEE #2 (CAL.)	22	17N	16E	6400
20K17M*	WARO CREEK (CAL.)	21	15N	18E	7000
20K2	WEBBER LAKE (CAL.)	20	19N	14E	6800
20K1*	WEBBER PEAK (CAL.)	30	19N	14E	8000

## Carson River

19L5	BLUE LAKES (CAL.)	30	9N	19E	8000
19L4	CARSON PASS, UPPER (CAL.)	22	10N	18E	8600
19K5	CLEAR CREEK	6	14N	19E	7300
19L18	EBBETTS PASS (CAL.)	17	8N	20E	8700
19L6A	POISON FLAT (CAL.)	25	8N	21E	7900
19L16a	UPPER FISH VALLEY (CAL.)	18	7N	22E	8050
19L17	WET MEADOWS LAKE (CAL.)	26	9N	19E	8100

## Walker River

19L11	BUCKEYE FORKS (CAL.)	20	4N	23E	8500
19L10	BUCKEYE ROUGHS (CAL.)	15	4N	23E	7900
19L12A	CENTER MOUNTAIN (CAL.)	4	3N	23E	9400
18L1	LAPON MEADOW	36	8N	28E	9000
19L9	LEAVITT MEADOWS (CAL.)	4	5N	22E	7200
19L17a	LOBLOLL LAKE	20	7N	24E	9200
18L2	MT. GRANT	23	8N	28E	9000
19L7M	SONORA PASS (CAL.)	1	5N	21E	8800
19M1*	TIOGA PASS (CAL.)	30	1N	25E	9900
19L13M	VIRGINIA LAKES (CAL.)	5	2N	25E	9500
19L9	WILLOW FLAT (CAL.)	21	5N	23E	8250

## COLORADO

### Lower Colorado River

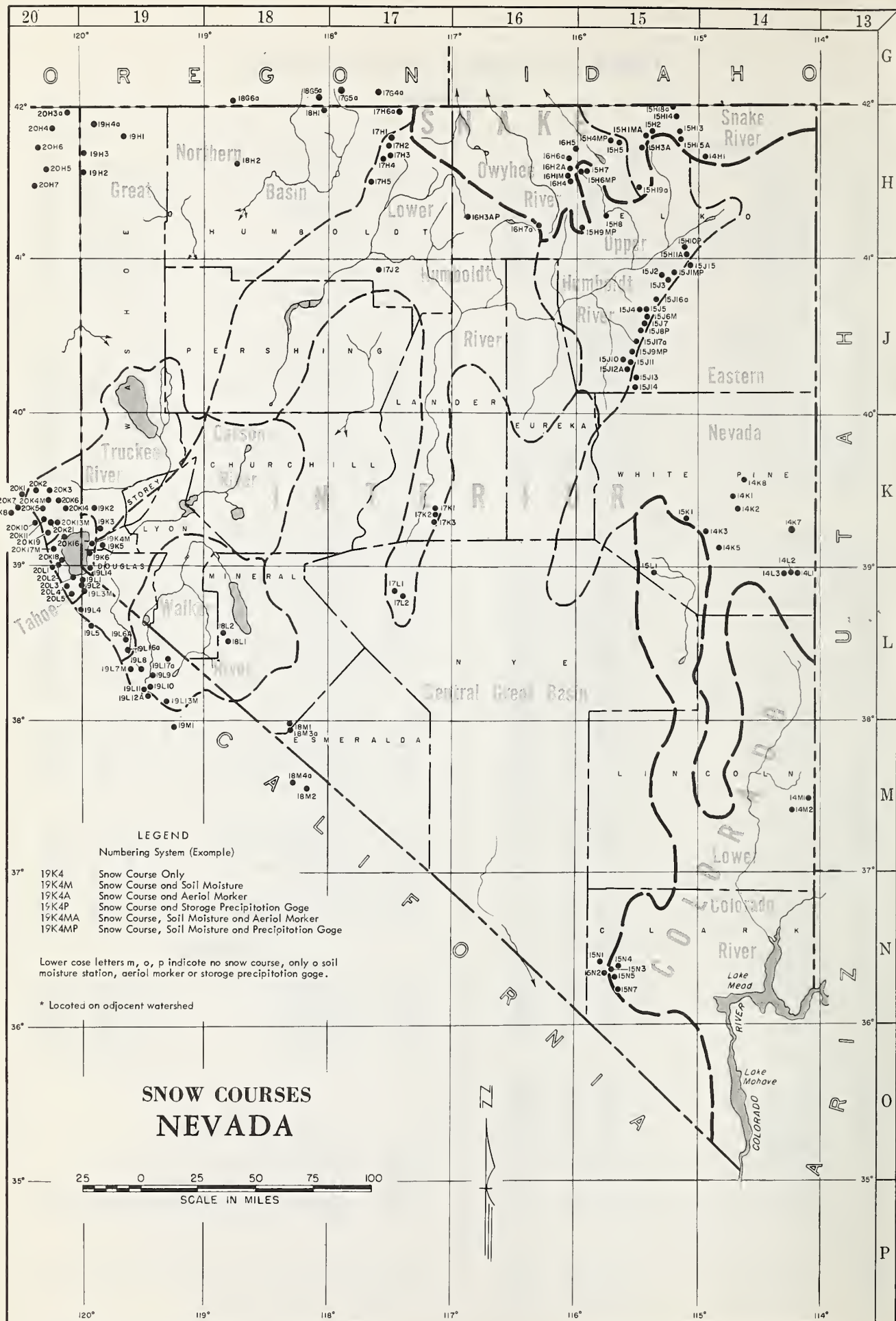
15N5	KYLE CANYON	26	19S	56E	8200
15N4	LEE CANYON #1	10	19S	56E	8300
15N3	LEE CANYON #2	9	19S	56E	9000
14M1	MATHEW CANYON	11	5S	70E	6000
14M2	PINE CANYON	11	6S	69E	6200
15N7	RAINBOW CANYON #2	6	20S	57E	8100
15L1	WHITE RIVER #1	31	13N	59E	7400

## LEGEND NUMBERING SYSTEM (EXAMPLE)

19K4	SNOW COURSE ONLY
19K4M	SNOW COURSE AND SOIL MOISTURE
19K4A	SNOW COURSE AND AERIAL MARKER
19K4P	SNOW COURSE AND STORAGE PRECIPITATION GAGE
19K4MA	SNOW COURSE, SOIL MOISTURE AND AERIAL MARKER
19K4MP	SNOW COURSE, SOIL MOISTURE AND PRECIPITATION GAGE

LOWER CASE LETTERS m, a, p, INDICATE NO SNOW COURSE, ONLY A SOIL MOISTURE STATION, AERIAL MARKER OR STORAGE PRECIPITATION GAGE.

\* LOCATED ON ADJACENT WATERSHED





WATER SUPPLY OUTLOOK  
FOR NEVADA

March 1, 1964

\* \* \* \* \*

\* Nevada's 1964 irrigation season water supply outlook varies from \*  
\* poor to good. Water users who derive part or all of their water \*  
\* from reservoirs will have reasonably ample supplies. Reservoir \*  
\* storage is 89 percent of the March 1, 1943-57 average. Users \*  
\* served from natural flow will have a less favorable spring and \*  
\* summer water supply. April - July, 1964, streamflow forecasts \*  
\* range from 40-78 percent of average on east slope of Sierra \*  
\* streams to 69-90 percent in the Humboldt and Owyhee basins. \*  
\* Southern Nevada streamflow will be less than 50 percent of average. \*  
\* The March 1, 1964 snow pack varies from 20 percent in southern \*  
\* Nevada to 90 percent in the Independence Mountains north of Elko. Except \*  
\* for some areas in the Humboldt and Owyhee basins very little snow \*  
\* fell in Nevada during February. Mountain soil moisture in western \*  
\* and northern Nevada is good. \*  
\* \* \* \* \*

STREAMFLOW FORECASTS

East slope Sierra streams are expected to flow from 65 to 78 percent of average during April-July 1964 except for the Carson river in the Carson City to Fort Churchill area, where flows of 40 percent of average are predicted. Lake Tahoe is forecast to rise 1.00 foot from April 1 assuming gates closed. Taking into account March inflow plus the predicted rise after April 1, Lake Tahoe would reach an elevation of 6227.0 feet above sea level.

April-July 1964 streamflow forecasts in the Humboldt basin range from 90 percent on the South Fork Humboldt to 69 percent of average on the main river at Palisade. Central and southern Nevada streamflow will be fair to poor, with the Virgin River expected to be only 43 percent of average during the irrigation season.

RESERVOIR STORAGE

Nevada's principal reservoirs held above average stored water on March 1, 1964, except for Lake Tahoe with 350,000 acre feet, which is much better than last year, and Rye Patch with 79,000 acre feet compared to its March 1 average of 103,000 acre feet. In aggregate, Nevada reservoir storage is 89 percent of average.

This carryover storage will help offset the below normal streamflow currently in prospect in many areas this coming spring and summer.

#### SOIL MOISTURE CONDITIONS

Mountain soils in western and northern Nevada were well wetted last fall and remain that way as of March 1, 1964. Very little snow melt water will be required to completely prime these soils. Mountain soils in southern Nevada are much drier and will absorb an appreciable quantity of water from the below normal southern Nevada snow pack.

Except for southern Nevada, spring range forage growth should be fair to good.

#### SNOW COVER

Except for the Humboldt and Owyhee basins, February water content increases in the Nevada and east slope Sierra in California snow pack were only 5-35 percent of the February average. About 80 percent of the February average increase fell in the Humboldt and Owyhee watersheds.

A sequence of storms began passing through Nevada on March 1 and are reported to have further improved the snow pack in western and northern Nevada. The effect of these storms plus any that occur later in the month of March will be determined when the April 1 snow surveys are taken.

# NEVADA STREAMFLOW FORECASTS - MARCH 1, 1964

The following summarized runoff forecasts are based principally on mountain snow cover and the assumption that precipitation and temperature will be near average from the present time to the end of the forecast period. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts.

Basin and Forecast Stream	April-July, Streamflow Thousands Acre Feet				
	Forecast	15-Yr.	1964 as	Measured	
	1964	Av. 1943-57	% of 15-Yr.Av.	Runoff 1963	1962
<u>TRUCKEE RIVER</u>					
Lake Tahoe <sup>1,3</sup>	1.00	1.50	67	1.87	1.22
Little Truckee River above Boca, California <sup>3</sup>	67	86	78	110	99
Truckee River at Farad, Cal. <sup>2,3</sup>	200	255	78	277	261
<u>CARSON RIVER</u>					
West Carson at Woodfords, Cal.	35	54	65	*	53
East Carson nr. Gardnerville, Nev.	125	189	66	212	192
East Carson nr. Gardnerville, Nev. (Date of 200 c.f.s. flow)	7/9	7/22	--	8/5	7/26
Carson River nr. Carson City, Nev.	75	184	41	218	186
Carson River at Ft. Churchill, Nev.	65	171	38	188	167
<u>WALKER RIVER</u>					
West Walker below E. Fk. nr. Coleville, Calif.	100	148	68	173	155
East Walker nr. Bridgeport, Calif. <sup>4</sup>	35	61	57	88	69
<u>COLORADO RIVER</u>					
Virgin River at Virgin, Utah <sup>5</sup>	19	44	43	18	57

(Continued)

NEVADA STREAMFLOW FORECASTS    March 1, 1964 (Continued)

Basin and Forecast Stream	April-July, Streamflow Thousands Acre Feet				
	Forecast 1964	15-Yr. Av. 1943-57	1964 as % of 15-Yr.Av.	Measured Runoff 1963	1962
<u>HUMBOLDT RIVER</u>					
So. Fk. Humboldt nr. Elko, Nev.	67	74	90	75	97
Lamoille Creek nr. Lamoille, Nev.	21	28	75	30	32
Humboldt River at Palisade, Nev.	155	225	69	216	267
Humboldt River at Comus, Nev.	100	143	70	140	224
Martin Creek nr. Paradise, Nev.	12	17	71	10	21
<u>SNAKE RIVER</u>					
Owyhee River nr. Gold Creek, Nev. 6	23	27	85	15	29
Owyhee River nr. Owyhee, Nev. 6	70	86	81	70	85
Salmon Falls Creek nr. San Jacinto, Nevada <sup>7</sup>	70 68	88 85	80 80		118 115
<u>SURPRISE VALLEY</u>					
Bidwell Cr. nr. Ft. Bidwell, Cal. <sup>8</sup>	9.5	16.0**	59	13.3	8.9
Mill Cr. nr. Cedarville, Cal. <sup>8</sup>	3.5	6.1	57	5.5	3.6
Deep Cr. nr. Cedarville, Cal. <sup>8</sup>	2.5	4.2	60	4.3	2.4
Eagle Cr. nr. Eagleville, Cal. <sup>8</sup>	3.5	5.8	60	5.2	4.1

1. Maximum rise, in feet, from April 1, assuming gates closed.
  2. Exclusive of Tahoe and corrected for storage in Boca Reservoir.
  3. Forecast issued by Truckee Basin Water Committee, composed of Truckee- Carson Irrigation District, Sierra Pacific Power Company and Washoe County Water Conservation District.
  4. For period April through August corrected for storage in Bridgeport Reservoir.
  5. April-June forecast; issued by SCS, Salt Lake City, Utah.
  6. Corrected for storage in Wild Horse Reservoir.
  7. March-Sept. and March-July forecasts respectively; issued by SCS, Boise, Idaho.
  8. April-Sept. forecast; coordinated forecast of SCS and California Dept. of Water Resources, Snow Survey Units.
- \* Gage washed out February, 1963; record incomplete.
- \*\* Adjusted average.



NEVADA

STATUS OF RESERVOIR STORAGE

MARCH 1, 1964

BASIN AND STREAM	RESERVOIR	USABLE CAPACITY (1000 AF)	USABLE STORAGE - 1000 ACRE FEET			
			1964	1963	1962	MARCH 1 15-YR. AVE 1943-57
Owyhee	Wild Horse	33	25	20	18	13
Lower Humboldt	Rye Patch	179	79	80	15	103
Colorado	Mohave	1,810	1,674	1,702	1,750	1,467*
Colorado	Mead	27,217	15,090	22,496	18,249	16,929
Tahoe	Tahoe	732	350	235	62	465
Truckee	Boca	41	6	32	3	6
Truckee	Prosser**	29	10	10	Storage began Jan.30,1963	
Carson	Lahontan	286	225	238	75	215
West Walker	Topaz	59	50	52	19	42
East Walker	Bridgeport	42	42	39	18	33

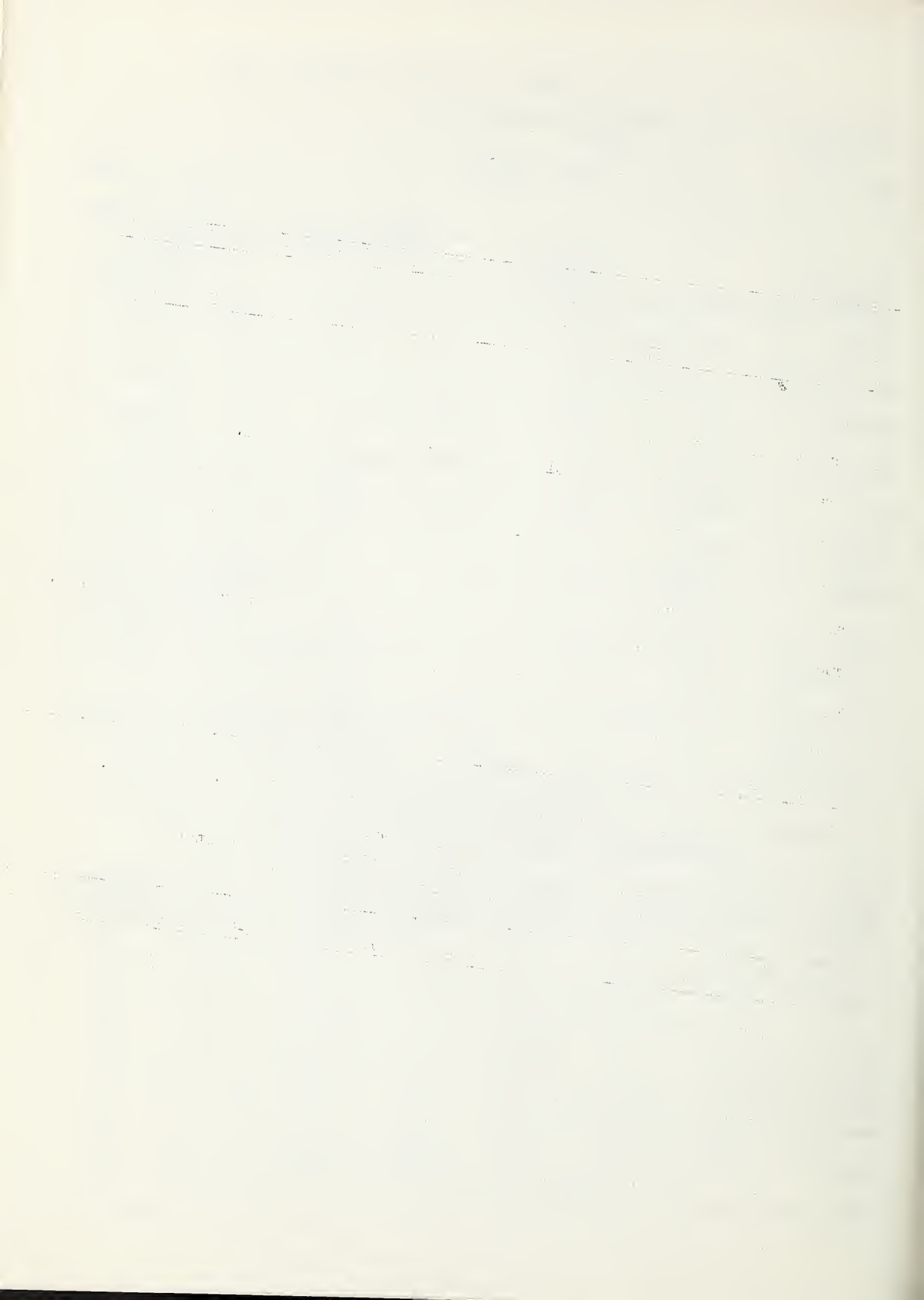
\* 1950-57

\*\* Flood control use allocation of 20,000 a.f. between Nov. 1 and Apr. 10

TOTAL RESERVOIR STORAGE

Developed from Wild Horse, Rye Patch, Tahoe, Boca, Lahontan, Topaz  
and Bridgeport Reservoirs in 1000's Acre Feet

MONTH	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	AVERAGE 1943-57
October 1	985	489	263	65	345	707	732
January 1	890	367	206	57	419	756	787
February 1	947	398	218	73	558	784	842
March 1	1,038	494	254	210	696	777	877
April 1	1,066	592	285	318	769		923
May 1	1,036	632	300	499	844		971
TOTAL USABLE CAPACITY	1,372						



# SNOW WATER ACCUMULATION in NEVADA by BASIN

MARCH 1, 1964

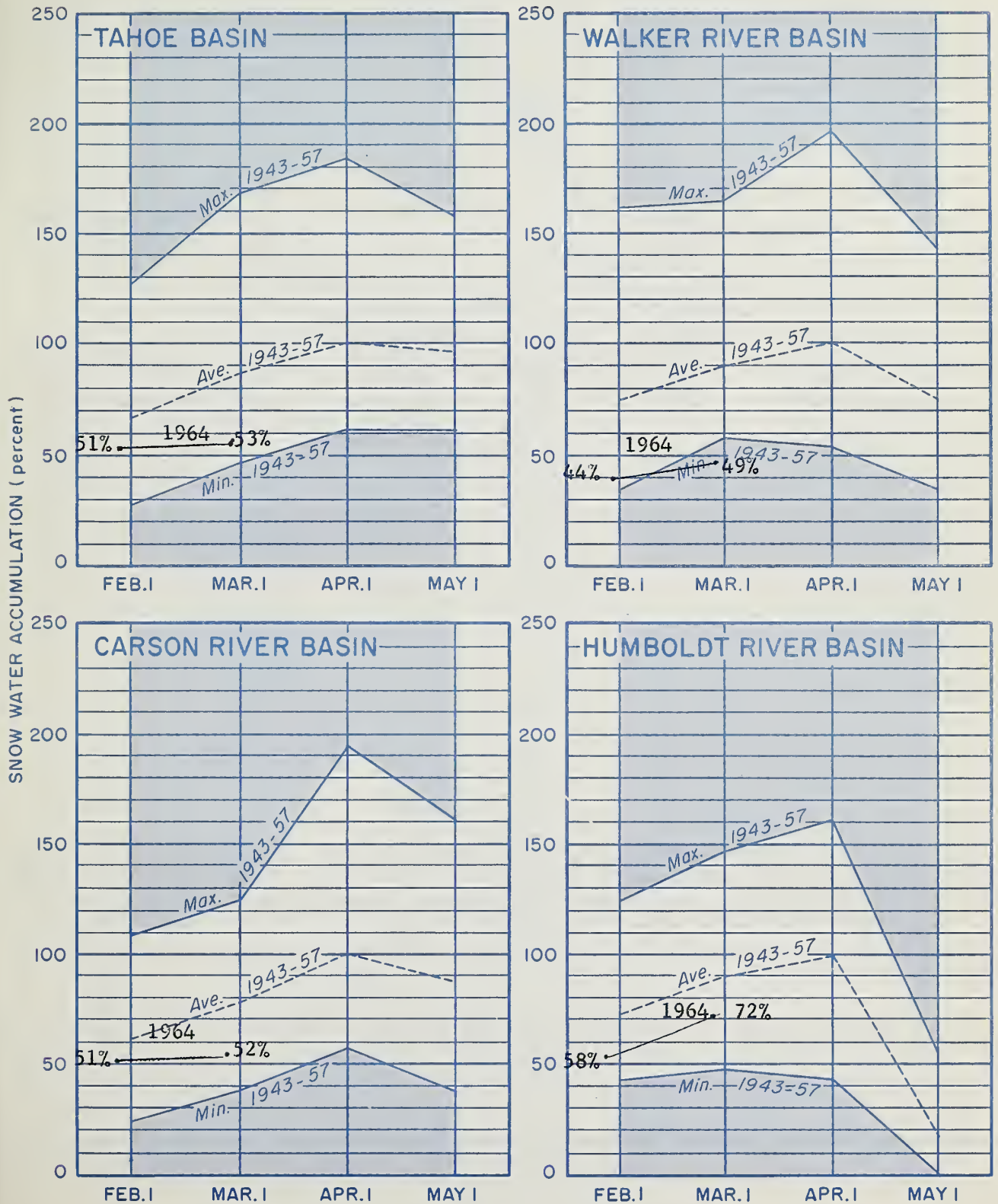


Plate 1

1904 1 1004

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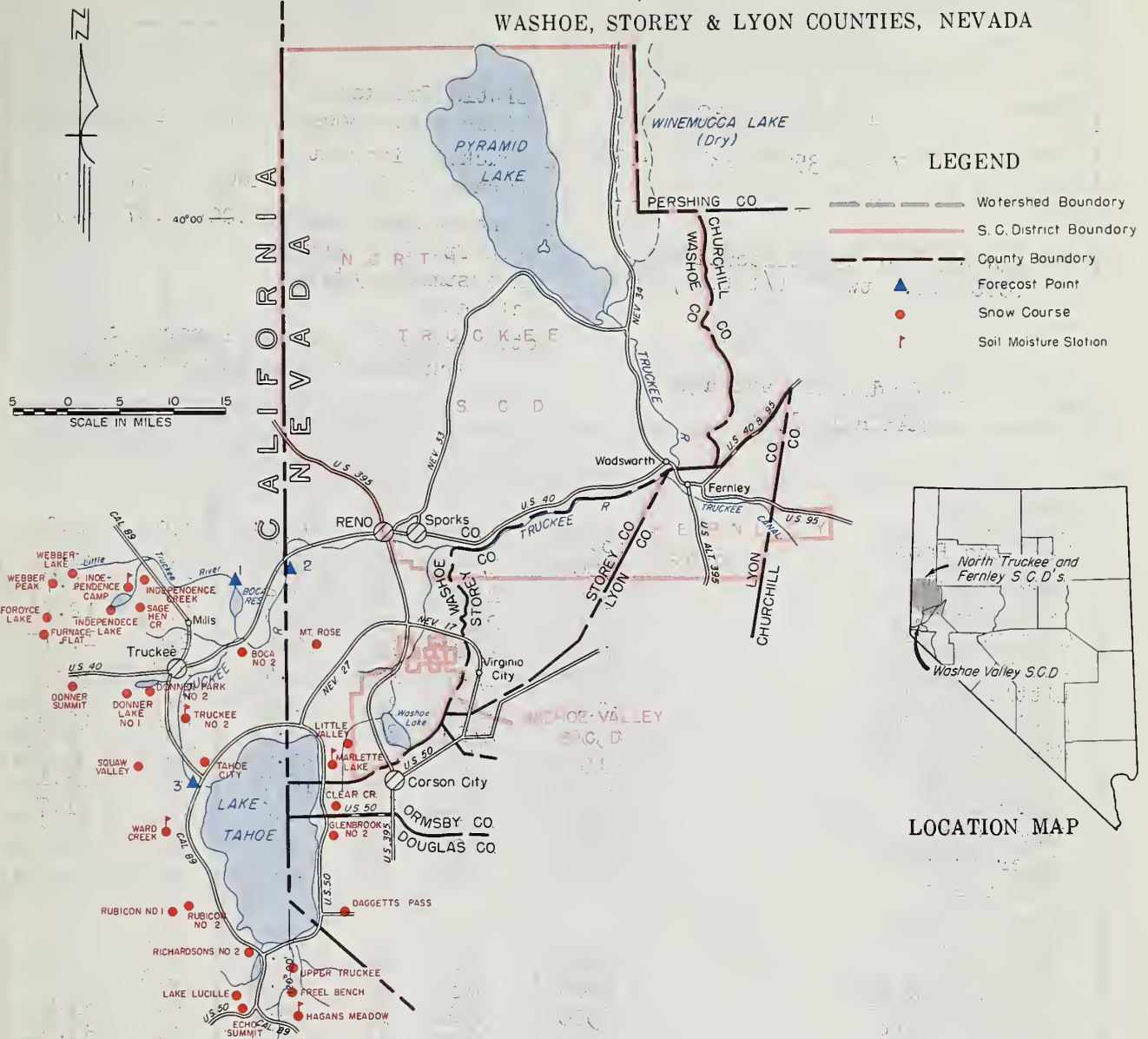
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# SNOW SURVEY & WATER SUPPLY FORECAST

NORTH TRUCKEE, FERNLEY & WASHOE VALLEY S.C.D.'s.

WASHOE, STOREY & LYON COUNTIES, NEVADA



MARCH 1, 1964

Very little snow fell in the Lake Tahoe and Truckee basins during February. The March 1, 1964 snowpack is 60 percent of average in the Tahoe basin and 72 percent of average in the Truckee basin. Soil moisture conditions under the snow are very good. Lake Tahoe holds 350,000 acre feet of water which is 115,000 acre feet more than a year ago this date. Boca holds 6,000 acre feet or 100 percent of its March 1, 1943-57 average.

The Truckee Basin Water Committee forecasts that Lake Tahoe will rise 1.00 foot from April 1 through the runoff period. The March 1, 1964 elevation of Lake Tahoe was 6225.87. Taking into account March inflow plus 1.00 foot from April 1, the Lake would rise to 6227.00 maximum elevation if gates were kept closed.

The Committee forecasts April-July flow of Truckee at Farad at 200,000 acre feet and Little Truckee above Boca at 67,000 acre feet.

## STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	AVERAGE
Boca	41	6	32	6
Lake Tahoe	732	350	235	465
Prosser b	29	10	10	--

b/ Flood control use allocation  
20,000 a.f. btwn. 11/1 to 4/10

NOTE:

All averages based on 1943-1957  
15 year period. The forecast period  
is from April 1 through July 31.

\* 1943-57 adjusted average

## APRIL - JULY RUNOFF (1,000 Ac. Ft.)

FORECAST POINT	FORECAST THIS YEAR	MEASURED	
		LAST YEAR	AVERAGE
1. Little Truckee River above Boca	67	110	86
2. Truckee River at Farad, Calif.	200	277	255
3. Lake Tahoe rise (In ft. from Apr. 1 assuming gates closed)	1.00	1.87	1.50

Note: Above forecasts prepared by  
Truckee Basin Water Committee

## SNOW

MARCH 1, 1964

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	AVERAGE
LAKE TAHOE						
Daggetts Pass	7350	2/25	18	5.5 <sup>c</sup>	0.0	12.0*
Echo Summit	7500	3/3	65	20.5	5.4	33.6
Freel Bench	7300	2/26	21	8.2	0.0	11.7*
Glenbrook #2	6900	2/29	21	6.0	1.8	12.7*
Hagans Meadow	8000	2/26	29	10.4	2.4	17.7*
Little Valley	6300	2/27	16	5.4	0.0	15.8*
Marlette Lake	8000	2/25	34	9.8	5.2	20.5*
Richardsons #2	6500	2/29	36	10.4	0.0	16.9*
Rubicon #1	8100	3/2	90	28.0	20.7	44.4*
Rubicon #2	7500	3/2	54	16.7	3.4	25.1*
Tahoe City	6250	2/27	19	9.6	0.0	11.7*
Upper Truckee	6400	2/26	18	7.1	0.0	10.2*
Ward Creek	7000	2/27	63	24.8	4.0	40.3*
TRUCKEE RIVER						
Boca #2	5900	3/3	22	4.6	0.0	7.8*
Donner Park #2	6000	3/3	48	13.6	0.0	--
Donner Summit	6900	2/27	59	23.5	0.0	33.8
Fordyce Lake	6500	2/27	64	25.9	0.0	33.8*
Furnace Flat	6600	2/27	72	28.2	0.0	40.0*
Independence Camp	7000	2/28	41	14.0	0.0	21.0*
Independence Creek	6500	2/28	29	10.2	0.0	13.2*
Independence Lake	8450	2/28	67	26.4	14.6	31.2*
Sage Hen Creek	6500	3/2	48	12.7	0.0	19.3*
Squaw Valley #2	7500	2/28	74	28.1	13.6	--
Truckee #2	6400	3/2	41	10.6	0.0	16.7*
c/ partial sample						

## SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Hagans Meadow	8000	36	3.65	2/26	2.9	New	
Independence Camp	7000	34	6.10	2/28	5.2		
Marlette Lake	8000	50	3.70	2/25	3.6		
Truckee #2	6400	18	3.65	3/2	2.7		
Ward Creek	7000	49	5.80	2/27	4.8		

Stations



# SNOW SURVEY & WATER SUPPLY FORECAST

CARSON VALLEY S.C.D., NEVADA  
and ALPINE S.C.D., CALIFORNIA



MARCH 1, 1964

Carson Valley water users can expect a below normal irrigation water supply this coming summer. April-July, 1964 streamflow is forecast to range from 65 percent of average at the East and West Fork Carson gaging stations to 38 percent of average on the main river at Fort Churchill.

Very little snow fell during February. As a result, the March 1 Carson watershed snow pack is only 56 percent of average. In general, snow conditions are similar to but slightly better than March 1, 1960.

Plate 3

(Over)

APRIL - JULY RUNOFF (1,000 Ac. Ft.)

FORECAST POINT	FORECAST THIS YEAR	MEASURED	
		LAST YEAR	AVERAGE
1. East Carson nr. Gardnerville	125	212	189
2. West Carson at Woodfords, Calif.	35	b	54
3. Carson River nr. Carson City	75	218	184
4. Carson River at Ft. Churchill	65	188	171
Date 200 c.f.s. flow E. Carson nr. Gardnerville	7/9	8/5	7/22

b - Gage washed out Feb., 1963. Record incomplete

MARCH 1, 1964

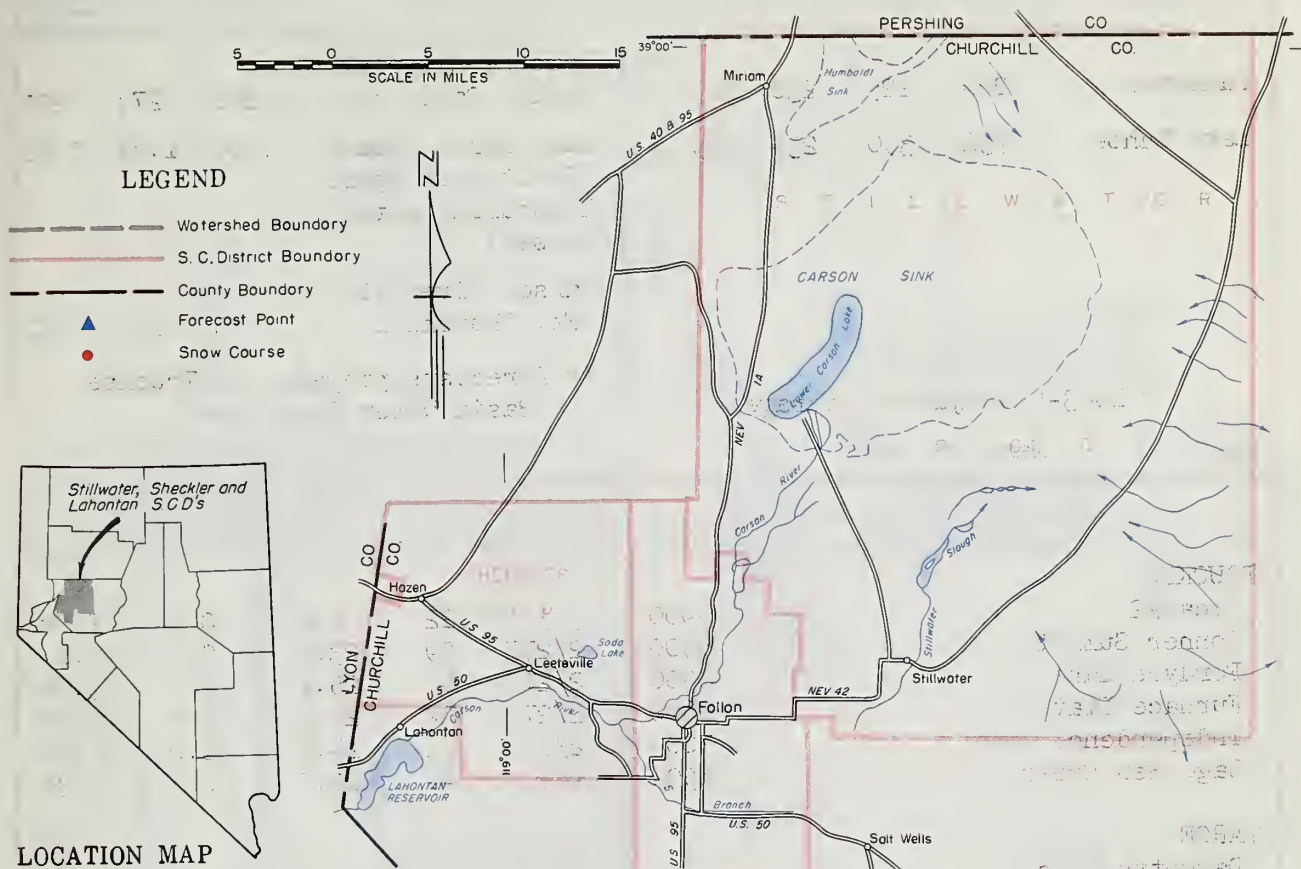
a - Aerial snow depth gage; water content estimated. c - Partial sample

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
Marlette Lake	8000	50	3.70	2/25	3.6	New	
Sonora Pass	8800	48	8.30	2/24	8.1	Stations	
(Continued from front)							
Mountain soils underneath the snow pack are well wetted and will absorb very little snow melt water.							
The East Carson near Gardnerville is forecast to flow 125,000 acre feet during April-July, 1964 which is 66 percent of average. The West Carson is forecast to flow 35,000 acre feet (65 percent average) during the same time period. The East Carson is forecast to drop to 200 c.f.s. on July 9, which is about two weeks earlier than normal.							
Downstream at Carson City and Ft. Churchill the Carson River is forecast to flow 75,000 and 65,000 acre feet which is 41 percent and 38 percent of their respective April-July averages.							
Lahontan March 1, 1964 storage is 225,000 acre feet which is 10,000 feet more than average.							



# SNOW SURVEY & WATER SUPPLY FORECAST

STILLWATER, SHECKLER, LAHONTAN S.C.D.'s. & VICINITY  
CHURCHILL COUNTY, NEVADA



MARCH 1, 1964

The Tahoe-Truckee-Carson watershed March 1, 1964 snowpack is below normal in the 60 to 75 percent of average range. There were no storms of any consequence during February on these east slope Sierra basins until the last two days.

Water users in the Fallon area should have a reasonably ample irrigation season water supply with stored water offsetting the below normal April-July 1964 streamflow in prospect on the Truckee and Carson Rivers.

Lahontan March 1, 1964 storage was 225,000 acre feet which is above average. Lake Tahoe held 350,000 acre feet on March 1 which is 115,000 acre feet more than last year at this time.

Carson at Ft. Churchill is forecast to flow 65,000 acre feet during April-July, 1964 or 39 percent of average. During the same period Truckee at Farad is forecast to flow 200,000 acre feet or 78 percent of the 1943-57 average. Lake Tahoe is forecast to rise 1.00 foot from April 1, 1964 assuming gates closed.

Mountain soils under the snowpack are well wetted and will require only an inch or less snow melt water to reach field capacity.

## STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	AVERAGE
Lahontan	286	225	238	215
Lake Tahoe	732	350	235	465

## NOTE:

All averages based on 1943-1957  
15 year period. The forecast period  
is from April 1 through July 31.

\* 1943-57 adjusted average

## APRIL - JULY RUNOFF (1,000 Ac. Ft.)

FORECAST POINT	FORECAST THIS YEAR	MEASURED	
		LAST YEAR	AVERAGE
Truckee River at Farad, Calif.**	200	277	255
Lake Tahoe rise** (In ft. from April 1 assuming gates closed)	1.00	1.87	1.50
Carson River at Ft. Churchill	65	188	171

\*\* Forecasts prepared by Truckee  
Basin Water Committee.

## SNOW

March 1, 1964

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	AVERAGE
TRUCKEE						
Boca #2	5900	3/3	22	4.6	0.0	7.8*
Donner Summit	6900	2/27	59	23.5	0.0	33.8
Fordyce Lake	6500	2/27	64	25.9	0.0	33.8*
Furnace Flat	6600	2/27	72	28.2	0.0	40.0*
Independence Camp	7000	2/28	41	14.0	0.0	21.0*
Sage Hen Creek	6500	3/2	48	12.7	0.0	19.3*
TAHOE						
Daggetts Pass	7350	2/25	18	5.5 <sup>b</sup>	0.0	12.0*
Echo Summit	7500	3/3	65	20.5	5.4	33.6
Hagans Meadow	8100	2/26	29	10.4	2.4	17.7*
Tahoe City	6250	2/27	19	9.6	0.0	11.7*
Ward Creek	7000	2/27	63	24.8	4.0	40.3*
CARSON RIVER						
Carson Pass, Upper	8600	3/4	52	19.0	12.9	28.2
Clear Creek	7300	2/27	21	5.8	0.0	14.3*
Sonora Pass	8800	2/24	36	12.4	13.2	21.2*

b/ partial sample

## SOIL MOISTURE

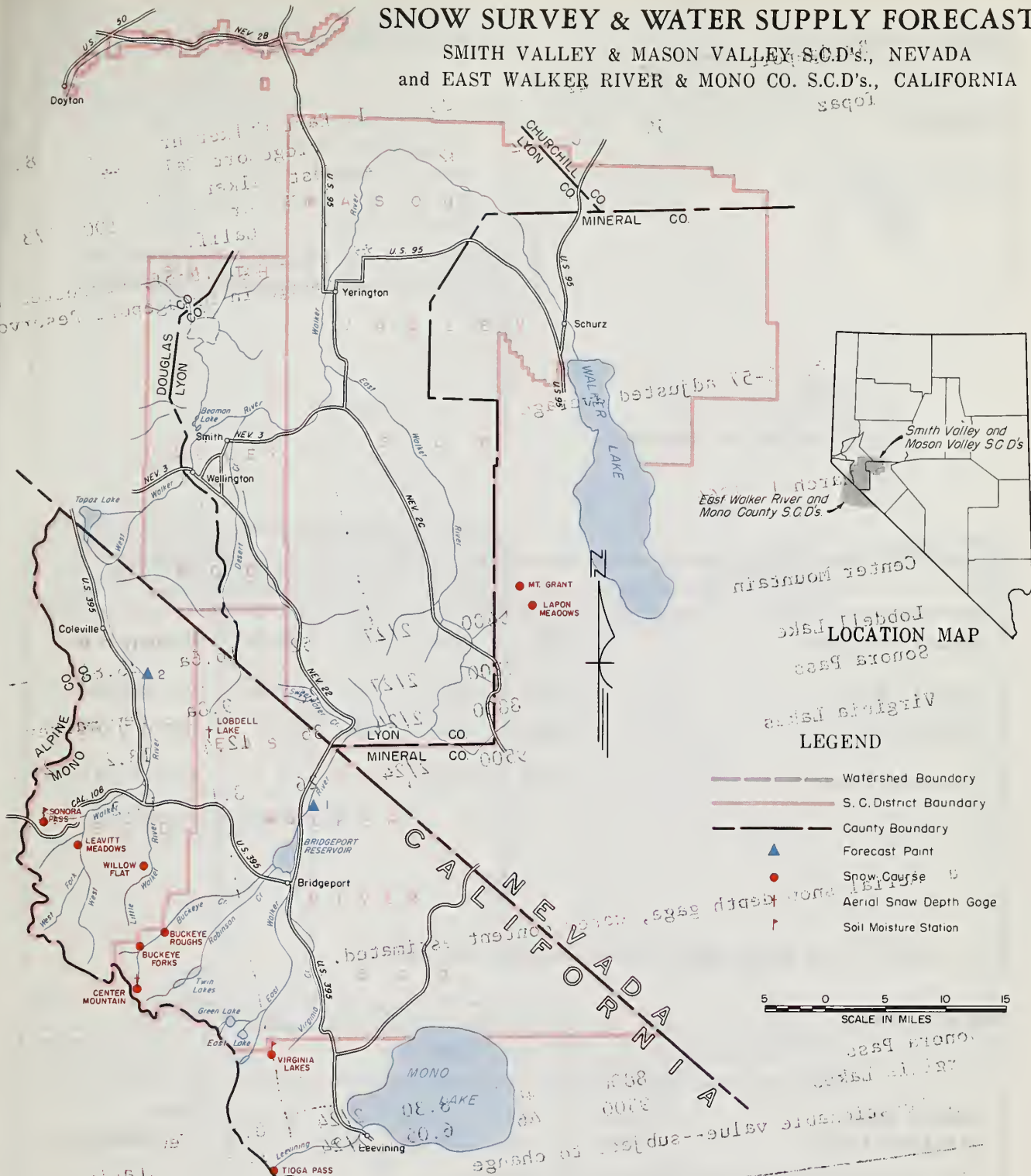
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Hagans Meadow	8000	36	3.65	2/26	2.9		
Independence Camp	7000	34	6.10	2/28	5.2	New	
Marlette Lake	8000	50	3.70	2/25	3.6		
Sonora Pass	8800	48	8.30	2/24	8.1		
Truckee #2	6400	18	3.65	3/2	2.7		
Ward Creek	7000	49	5.80	2/27	4.8		

Stations



# SNOW SURVEY & WATER SUPPLY FORECAST

SMITH VALLEY & MASON VALLEY S.C.D.'s., NEVADA  
and EAST WALKER RIVER & MONO CO. S.C.D.'s., CALIFORNIA



March 1, 1964

Irrigation season streamflow during 1964 above Bridgeport and Topaz Reservoirs on the East and West Walker rivers will be below normal. However, a reasonably ample irrigation season water supply will be available to water users in Smith and Mason Valley due to excellent reservoir storage in Topaz and Bridgeport.

East Walker near Bridgeport is forecast to flow 35,000 acre feet during April-August or 57 percent of average. Bridgeport reservoir is essentially full holding 42,000 acre feet on March 1, 1964.

Plate 5

**STORAGE (1,000 Ac. Ft.)**

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	AVERAGE
Bridgeport	42	42	39	33
Topaz	59	50	52	42

All averages based on 1943-1957 15 year period. The forecast period is from April 1 through July 31.

\*1943-57 adjusted average

APRIL - JULY RUNOFF (1,000 Ac. Ft.)

FORECAST POINT	FORECAST THIS YEAR	MEASURED	
		LAST YEAR	AVERAGE
1. East Walker nr Bridgeport, Calif.**	35	88	61
2. West Walker below E. Fk. nr. Cole- ville, Calif.	100	173	148
** Apr.-Aug. runoff corrected for change in Bridgeport Reservoir.			

**SNOW** March 1, 1964

SNOW		CURRENT INFORMATION			PAST RECORD	
SNOW COURSE		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	AVERAGE
Center Mountain	9400	2/27	52	16.6a	28.8a	--
Lobdell Lake	9200	2/27	28	9.8a	New marker	
Sonora Pass	8300	2/24	36	12.4	13.2	21.2*
Virginia Lakes	9500	2/24	26	8.1	15.2	16.2*

a Aerial snow depth gage; water content estimated.

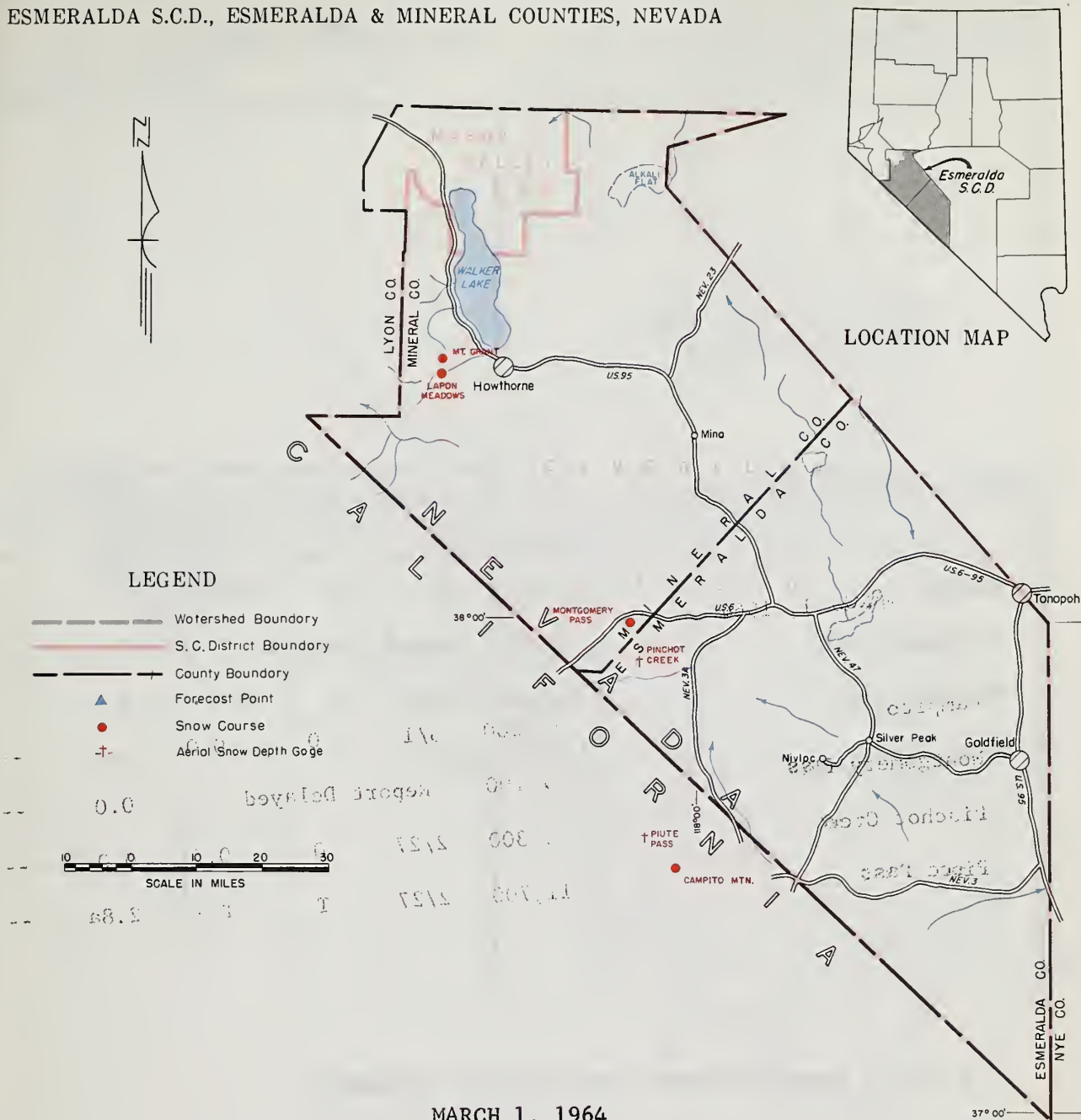
## SOIL MOISTURE

SOIL MOISTURE		PROFILE (Inches)		SOIL MOISTURE (Inches)			
STATION		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Sonora Pass	8800	48	8.30	2/24	8.1	New	Stations
Virginia Lakes	9500	46	6.05	2/24	1.3 <sup>b</sup>		
b/ Questionable value--subject to change							
West Walker near Coleville, is forecast to flow 100,000 acre feet during April-July which is 68 percent of average. Downstream, Topaz reservoir currently holds 50,000 acre feet compared to its 59,000 acre feet useable capacity.							



# SNOW SURVEY & WATER SUPPLY FORECAST

## ESMERALDA S.C.D., ESMERALDA & MINERAL COUNTIES, NEVADA



The March 1, 1964 snowpack in the White Mountains is very poor this year. The snowpack ranges from zero at lower elevations to only a trace at higher elevations. This represents a slight decrease at the higher elevations from last month. Pinchot Creek has no snow and Piute Pass only a trace.

Ground water recharge from the White Mountains into Fish Lake Valley will be poor this year.

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	AVERAGE

*NOTE :*

All averages based on 1943-1957  
15 year period. The forecast period  
is from April 1 through July 31.

FORECAST POINT	FORECAST THIS YEAR	MEASURED	
		LAST YEAR	AVERAGE

SNOW      MARCH 1, 1964

SNOW		MARCH 1, 1964		CURRENT INFORMATION			PAST RECORD	
SNOW COURSE		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)			
NAME	ELEVATION				LAST YEAR	AVERAGE		
Campito	10,200	3/1	0	0.0	--	--		
Montgomery Pass	7,100	Report Delayed			0.0	--		
Pinchot Creek	9,300	2/27	0	0.0	0.0	--		
Piute Pass	11,700	2/27	T	T a	2.8a	--		

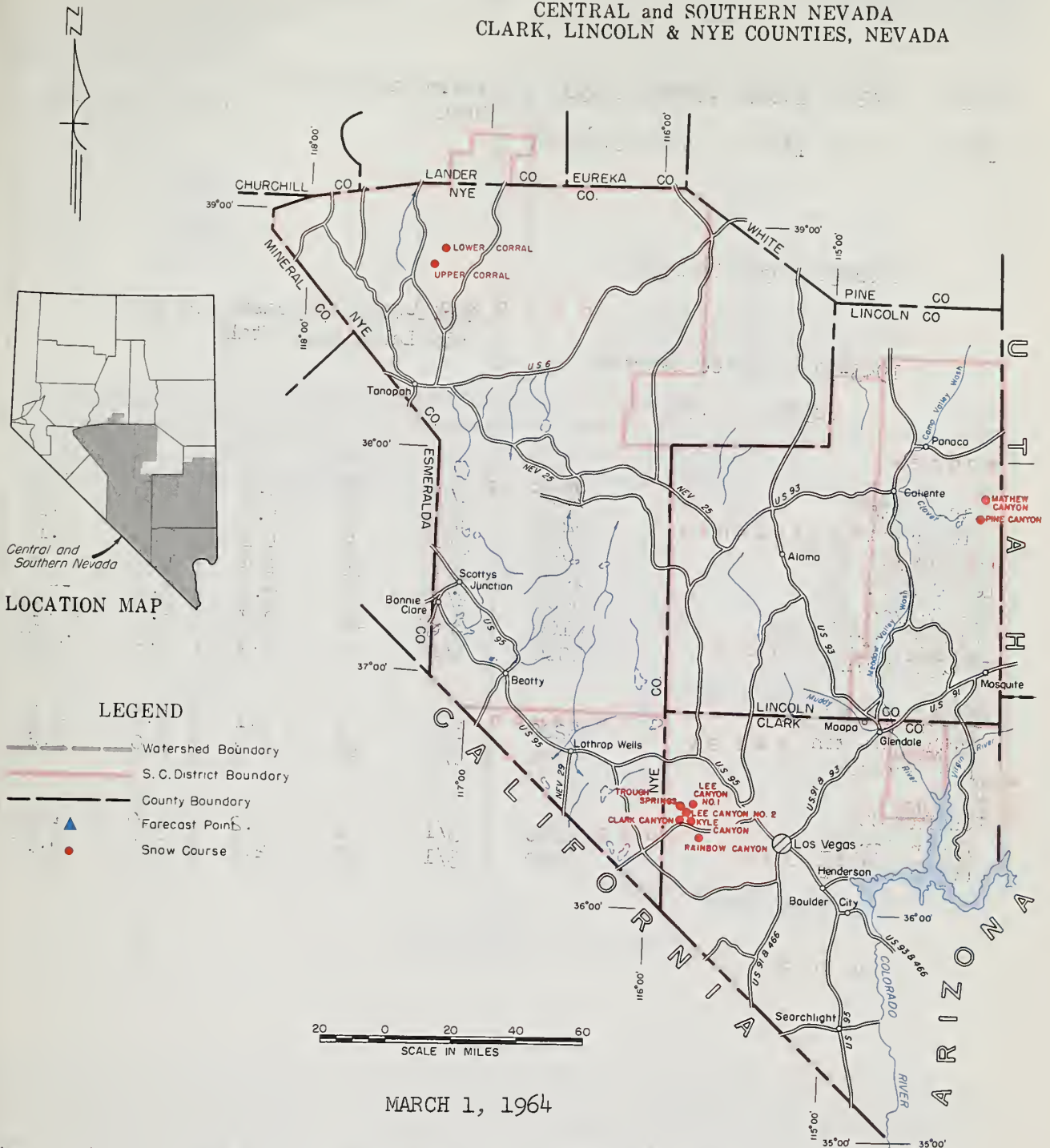
<sup>a</sup> Aerial snow depth gage, water content estimated.

2001, 1, 11

The first of the two peaks in the White Mountains is a very poor one. It is a low, rounded hill, with a few small peaks and a few small valleys. The highest point is only a few feet above the surrounding country. The second peak is a much better one. It is a high, steep, and rugged mountain, with a few small peaks and a few small valleys. The highest point is about 100 feet above the surrounding country.

# SNOW SURVEY & WATER SUPPLY FORECAST

CENTRAL and SOUTHERN NEVADA  
CLARK, LINCOLN & NYE COUNTIES, NEVADA



Water content of snow in the Spring Mountains near Las Vegas is only 19 percent of the March 1 average. This is slightly better than March 1, 1963. Ground water recharge from the Spring Mountains will be poor.

Pine and Mathew Canyon snow courses in Meadow Valley Wash east of Caliente are 56 percent of normal. The Corral courses in the headwaters of Reese River north of Tonopah are 36 percent of average. Reese River area water users will have a poor irrigation season water supply.

Virgin River at Virgin, Utah is forecast to flow 19,000 acre feet during April-June which is 43 percent of average. This amount of streamflow is very similar to last years April-June flow of 19,000 acre feet. Thus Virgin River water users in the Mesquite area can expect another below normal irrigation season water supply.



## STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	AVERAGE
Mead	27220	15090	22496	16930
Mohave	1810	1674	1702	1480**

\* Storage began in 1950

## NOTE:

All averages based on 1943-1957  
15 year period. The forecast period  
is from April 1 through July 31.

\* 1943-57 adjusted average

## APRIL - JULY RUNOFF (1,000 Ac. Ft.)

FORECAST POINT	FORECAST THIS YEAR	MEASURED	
		LAST YEAR	AVERAGE
Virgin at Virgin, Utah	19	18	44

April-June forecast; by SCS  
Salt Lake City, Utah

## SNOW

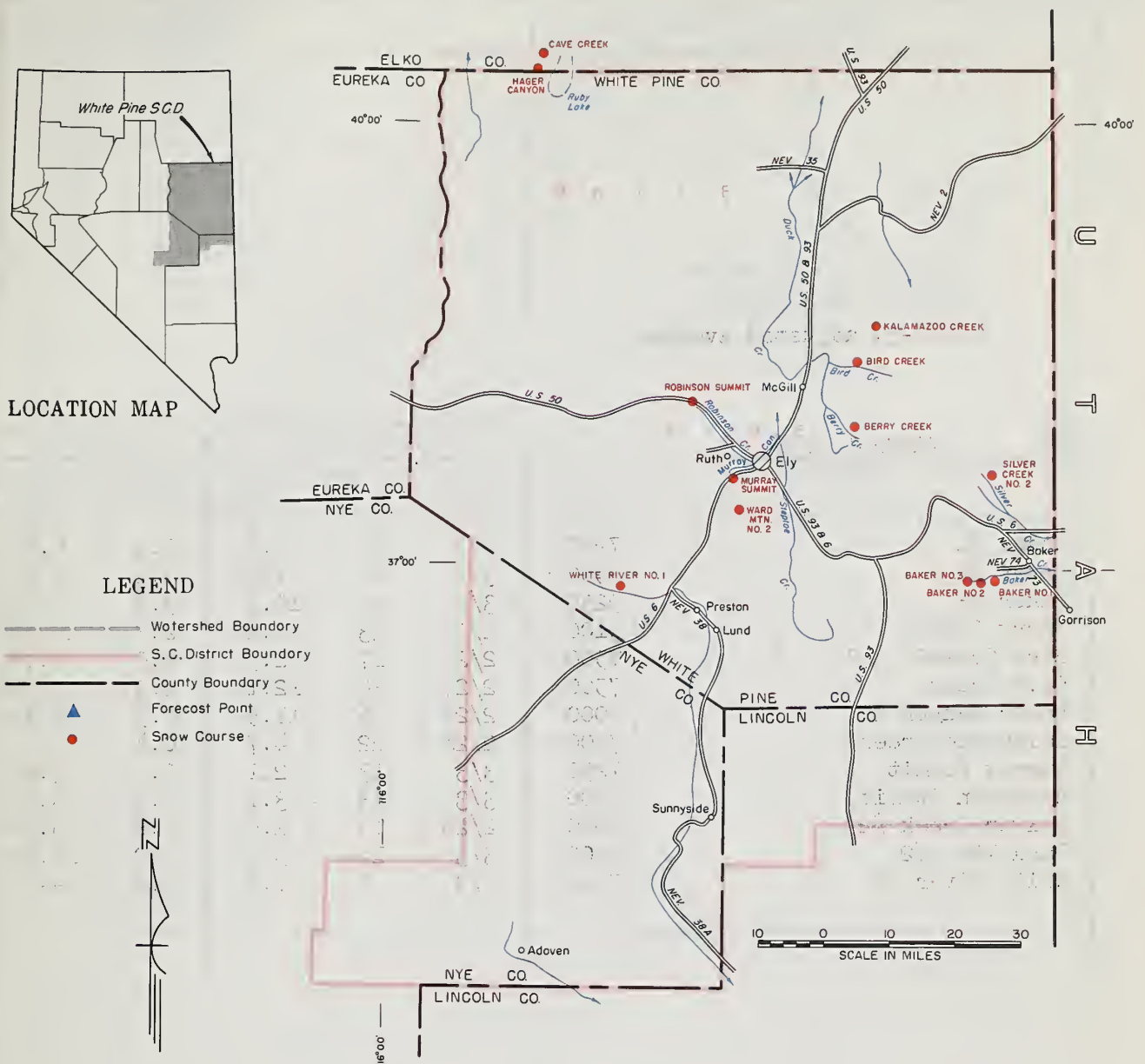
MARCH 1, 1964

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	AVERAGE
Clark Canyon	9000	2/27	6	1.4	0.6	7.9*
Kyle Canyon	8200	2/28	6	1.4	0.6	9.3
Lee Canyon #1	8300	2/28	5	1.2	0.3	8.1
Lee Canyon #2	9000	2/28	11	2.4	1.6	9.0
Lee Canyon #3	8400	2/28	6	0.9	0.4	--
Rainbow Canyon #2	8100	2/28	12	2.7	2.0	14.2*
Trough Springs	8500	2/27	4	1.1	0.6	6.6*
MEADOW VALLEY SCD						
Mathew Canyon	6200	3/2	7	1.1	0.0	2.1*
Pine Canyon	6000	3/2	10	1.3	0.0	2.2*
TONOPAH SCD						
Lower Corral	7500	3/1	1	0.2	0.0	1.8*
Upper Corral	8500	3/1	12	2.4	0.0	5.5*



# SNOW SURVEY & WATER SUPPLY FORECAST

## WHITE PINE S.C.D., WHITE PINE, LINCOLN & NYE COUNTIES, NEVADA



March 1, 1964

Streamflow from the Schell Creek and Snake Ranges will be fair this year if present conditions continue. Mountain snow pack in this area is only 55 percent of the March 1 average. The snowpack has increased from the indicated amounts due to a heavy storm which occurred after the surveys were taken in their area and will be reflected in the April 1 report.

In the Baker Creek area the mountain snowpack measured during the March 1-3 snow storm is 57 percent of the March 1 average. Streamflow in this area will be fair with normal conditions prevailing.

To the north on the east slope of the Ruby's above the Ruby Lake Wildlife refuge, mountain snowpack is 80 percent of average. Fair to average streamflow can be expected if conditions are normal to above normal this spring.

The irrigation water supply in White Pine County will be fair this year if the present trend continues. Good irrigation water management practices should be exercised this year in order to attain the maximum benefit from the limited water supply.

## STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	AVERAGE

## APRIL - JULY RUNOFF (1,000 Ac. Ft.)

FORECAST POINT	FORECAST THIS YEAR	MEASURED	
		LAST YEAR	AVERAGE

## NOTE:

All averages based on 1943-1957  
15 year period. The forecast period  
is from April 1 through July 31.

\* 1943-57 adjusted average

## SNOW

MARCH 1, 1964

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	AVERAGE
Baker #1	7950	3/2	27	4.0	0.9	6.4
Baker #2	8950	3/2	44	7.3	3.1	15.6
Baker #3	9250	3/2	47	10.3	3.8	17.0*
Berry Creek	9100	2/27	33	8.2	2.7	14.6*
Bird Creek	7500	2/27	17	2.9	0.0	4.7*
Cave Creek	7500	2/27	34	12.1	2.3	13.1*
Hager Canyon	8000	2/27	36	11.5	4.5	17.1*
Kalamazoo Creek	7400	2/28	22	4.7	0.4	--
Murray Summit	7250	3/3	13	2.1	0.0	3.9
Robinson Summit	7600	3/3	13	3.1	0.0	3.6*
Silver Creek #2	8000	2/28	15	2.6	0.8	5.5*
Ward Mtn. #2	8900	3/3	19	3.5	3.2	16.4*
White River #1	7400	3/3	6	1.5	0.0	--

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## STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	AVERAGE

## NOTE:

All averages based on 1943-1957  
15 year period. The forecast period  
is from April 1 through July 31.

\* 1943-57 adjusted average

## APRIL - JULY RUNOFF (1,000 Ac. Ft.)

FORECAST POINT	FORECAST THIS YEAR	MEASURED	
		LAST YEAR	AVERAGE

## SNOW

MARCH 1, 1964.

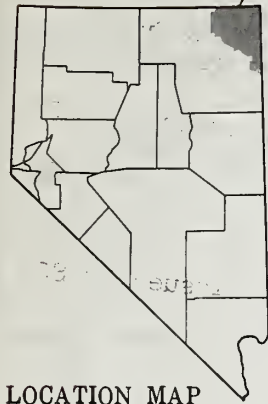
SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	AVERAGE
American Beauty	7800	Report delayed			New Marker	
Cave Creek	7500	2/27	34	12.1	2.3	13.1*
Corral Canyon	8500	Report delayed			5.1	16.5*
Dorsey Basin	8100	3/2	38	10.3	3.9	10.2
Dry Creek	6500	3/2	21	5.2	0.0	4.8*
Green Mountain	8000	3/3	41	10.2	3.3	11.2*
Hager Canyon	8000	2/27	36	11.5	4.5	17.1*
Harrison Pass #1	6600	3/4	27	5.7	T	4.0
Harrison Pass #2	7400	3/4	28	6.2	T	4.4*
Hole-in-Mountain	7900	2/28	38	14.2	11.2	--
Lamoille #1	7100	2/27	31	7.8	1.9	9.8
Lamoille #2	7300	2/27	28	7.4	1.7	9.4
Lamoille #3	7700	2/27	30	8.5	4.3	12.2
Lamoille #4	8000	2/27	40	11.0	8.2	17.7*
Lamoille #5	8700	2/27	48	15.2	15.6	25.2*
Ryan Ranch	5800	3/2	14	3.0	0.0	2.0
Robinson Lake	9200	Report delayed			New marker	
Trout Creek, Lower	6900	3/4	17	4.7	0.0	4.5*
Trout Creek, Upper	8500	Report delayed			9.3	19.0*

a/ Aerial snow depth gage; water content estimated.

# SNOW SURVEY & WATER SUPPLY FORECAST

NORTHEAST ELKO S.C.D., ELKO COUNTY, NEVADA

Northeast Elko SGD



LOCATION MAP

- LEGEND**
- Watershed Boundary
  - S.C. District Boundary
  - County Boundary
  - ▲ Forecast Point
  - Snow Course
  - † Aerial Snow Depth Gage



5 0 5 10  
SCALE IN MILES

MARCH 1, 1964

Mountain snowpack in the headwaters of Salmon Falls Creek in the Northeast Elko SCD is 85-100 percent of the March 1, 1943-57 average. Mountain soil moisture is good. If normal precipitation occurs during March and into the spring months irrigation season runoff should be good.

Salmon Falls Creek near San Jacinto is forecast to flow 68,000 acre feet during March-July, 1964, which is 80 percent of average.

## STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	AVERAGE

## NOTE:

All averages based on 1943-1957  
15 year period. The forecast period  
is from April 1 through July 31.

\* 1943-57 adjusted average

## APRIL - JULY RUNOFF (1,000 Ac. Ft.)

FORECAST POINT	FORECAST THIS YEAR	MEASURED	
		LAST YEAR	AVERAGE
1. Salmon Falls Cr. near San Jacinto			
March-September	70	<u>1962</u> 118	88
March-July	68	115	85
Forecasts issued by SCS Boise, Idaho			

## SNOW

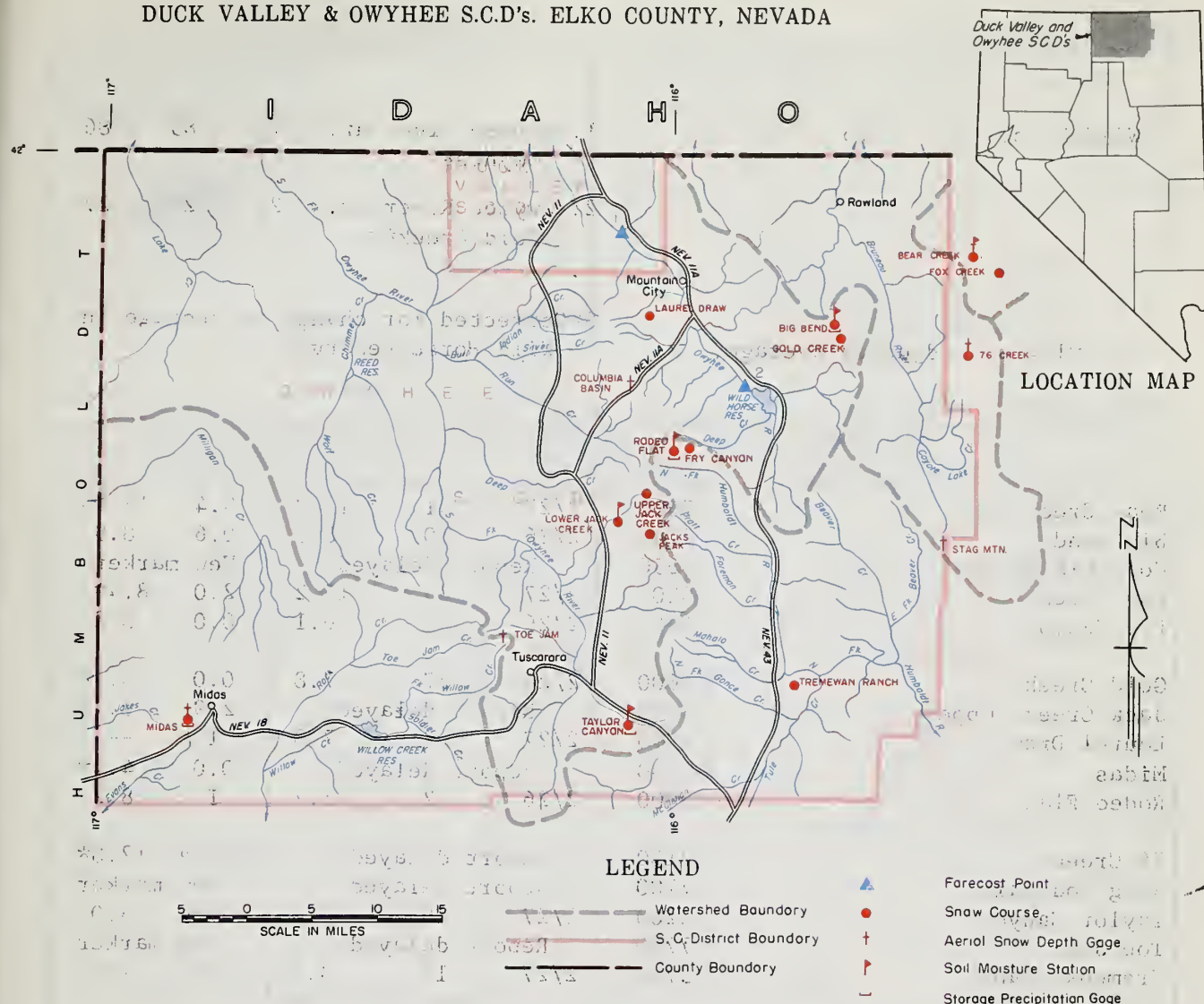
MARCH 1, 1964

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	AVERAGE
Goat Creek	8800	2/27	47	13.9	10.1 <sup>a</sup>	--
Hummingbird Springs	8945	2/27	56	16.9	9.2	18.3*
Jakes Creek	7000	3/1	18	6.5	14.0	--
Pole Creek Ranger Station	8330	2/27	55	16.5	8.7	16.0*
Red Point	7940	2/27	42	12.6 <sup>a</sup>	1.5 <sup>a</sup>	--
a/ Aerial snow depth gage; water content estimated.						



# SNOW SURVEY & WATER SUPPLY FORECAST

DUCK VALLEY & OWYHEE S.C.D.'s. ELKO COUNTY, NEVADA



MARCH 1, 1964

Mountain snowpack in the Duck Valley and Owyhee SCDs is 92 percent of the March 1 average. Snow at the lower elevations is exceptionally good for this time of year.

Streamflow in this area will be fair to good if normal conditions prevail. Wild Horse reservoir now holds 25,000 acre feet which is 12,000 acre feet above normal. With the anticipated streamflow and if there are no early withdrawals from Wild Horse, the reservoir will spill this year.

The Owyhee near Gold Creek is forecast to flow 23,000 acre feet during April-July or 85 percent of average. Downstream, the Owyhee near Owyhee is forecast to flow 70,000 acre feet or 81% of average.

Plate 11

# STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	AVERAGE
Wild Horse	33	25	20	13

NOTE:

All averages based on 1943-1957 15 year period. The forecast period is from April 1 through July 31.

\*1943-57 adjusted average

# APRIL - JULY RUNOFF (1,000 Ac. Ft.)

FORECAST POINT	FORECAST THIS YEAR	MEASURED	
		LAST YEAR	AVERAGE
1. Owyhee River nr. Owyhee**	70	85	86
2. Owyhee River nr. Gold Creek**	23	29	27

\*\*Corrected for change in storage in Wild Horse Reservoir.

# SNOW March 1, 1964

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	AVERAGE
Bear Creek	7800	2/27	51	12.8	9.4	17.1*
Big Bend	6700	2/26	30	8.5	0.6	8.9
Columbia Basin	6650	Report delayed			New marker	
Fox Creek	6800	2/27	35	10.2	2.0	8.4*
Fry Canyon	6700	2/26	26	6.1	0.0	8.2
Gold Creek	6600	2/26	27	7.8	0.0	6.3*
Jack Creek, Upper	7250	Report delayed			2.9	9.7*
Laurel Draw	6700	2/27	29	7.8	T	--
Midas	7200	Report delayed			0.0	4.7*
Rodeo Flat	6800	2/26	22	5.7	T	8.2
76 Creek	7100	Report delayed			T a	12.8*
Stag Mountain	7700	Report delayed			New marker	
Taylor Canyon	6200	2/27	19	4.6	0.0	5.0
Toe Jam	7700	Report delayed			New marker	
Tremewan Ranch	5700	2/27	11	3.2	0.0	1.9

a Aerial snow depth gage, water content estimated.

# SOIL MOISTURE

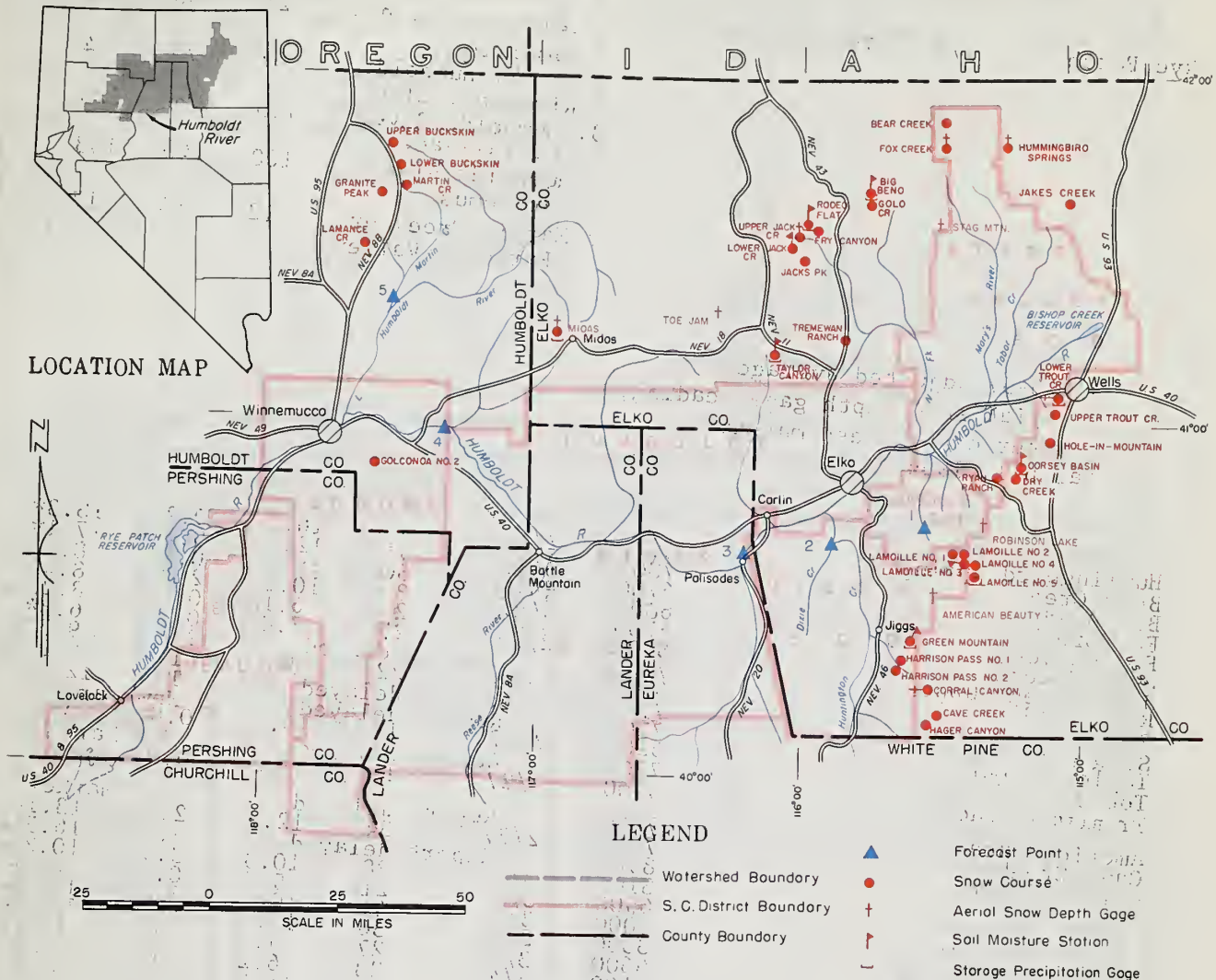
STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
Bear Creek	7800	72	16.9	11/1	9.6	7.6	8.7
Big Bend	6700	48	16.7	2/26	15.7	15.2	15.1
Rodeo Flat	6800	42	11.0	2/26	8.9	10.6	11.0
Taylor Canyon	6200	48	15.1	1/27	12.6	12.4	13.7

b - Nearest current data available



# SNOW SURVEY & WATER SUPPLY FORECAST

HUMBOLDT RIVER  
CHURCHILL, ELKO, EUREKA, HUMBOLDT, LANDER & PERSHING COUNTIES, NEVADA



MARCH 1, 1964

The March 1, 1964 snow pack in the Humboldt basin is slightly below average. The snow pack varies from 82 percent of the March 1, 1943-57 average in the Ruby Mountains and Santa Rosa Mountains to 92 percent of average in the Independence Mountains north of Elko. Percentage-wise the March 1 snow pack is better at the lower elevation snow courses than it is at the high or medium elevation snow courses.

At Palisade the Humboldt river is forecast to flow 155,000 acre feet during April-July 1964 which is 69 percent of its 1943-57 average. Downstream at Comus the Humboldt is forecast to flow 100,000 acre feet. Lamoille near Lamoille is predicted to flow 21,000 acre feet during April-July (75 percent average). South Fork Humboldt should flow 67,000 acre feet (90 percent average) during the same four month period. Martin Creek near Paradise Valley is forecast at 12,000 acre feet or 71 percent of the April-July average. In view of these forecasts, Humboldt River water users served by direct diversion and dependent on their water rights priority will have a fair to good irrigation season water supply.

Rye Patch Reservoir held 79,000 acre feet on March 1, 1964 (76 percent average). This amount of water plus anticipated Humboldt river flow during April-July should provide a reasonably adequate irrigation water supply in the Lovelock area. However, Rye Patch will probably be quite low by the end of the irrigation season.



## STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	AVERAGE
Rye Patch	179	79	80	103

## NOTE:

All averages based on 1943-1957  
15 year period. The forecast period  
is from April 1 through July 31.

\*1943-57 adjusted average  
a Aerial snow depth gage reading;  
water content estimated.  
March 1, 1964

## APRIL - JULY RUNOFF (1,000 Ac. Ft.)

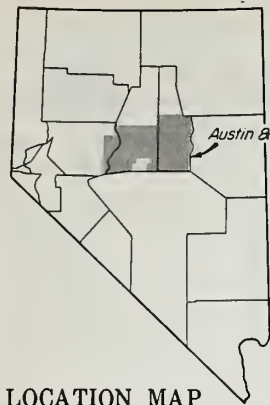
FORECAST POINT	FORECAST THIS YEAR	MEASURED	
		LAST YEAR	AVERAGE
1.Lamoille Cr. nr. Lamoille	21	30	28
2.So.Fk. Humboldt River nr. Elko	67	75	74
3. Humboldt River at Palisade	155	216	225
4.Humboldt River at Comus	100	140	143
5.Martin Creek nr. Paradise Valley	12	10	17

## SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	AVERAGE
Hummingbird Springs	8945	2/27	56	16.9	9.2	18.3*
Bear Creek	7800	2/27	51	12.8	9.4	17.1*
Big Bend	6700	2/26	30	8.5	0.6	8.9
Fox Creek	6800	2/27	35	10.2	2.0	8.4*
Fry Canyon	6700	2/26	26	6.1	0.0	8.2
Gold Creek	6600	2/26	27	7.8	0.0	6.3*
Jack Creek, Upper	7250	Report delayed			2.9	9.7*
Rodeo Flat	6800	2/26	22	5.7	T	8.2
76 Creek	7100	Report delayed			T a	12.8*
Stag Mountain	7700	Report delayed			New Marker	
Taylor Canyon	6200	2/27	19	4.6	0.0	5.0
Toe Jam	7700	Report delayed			New Marker	
Tremewan Ranch	5700	2/27	11	3.2	0.0	1.9
American Beauty	7800	Report delayed			New Marker	
Cave Creek	7500	2/27	34	12.1	2.3	13.1*
Corral Canyon	8500	Report delayed			5.1	16.5*
Dorsey Basin	8100	3/2	38	10.3	3.9	10.2
Dry Creek	6500	3/2	21	5.2	0.0	4.8*
Green Mountain	8000	3/3	41	10.2	3.3	11.2*
Hager Canyon	8000	2/27	36	11.5	4.5	17.1*
Harrison Pass #1	6500	3/4	27	5.7	T	4.0
Harrison Pass #2	7400	3/4	28	6.2	T	4.4*
Hole-in-Mountain	7900	2/28	38	14.2	11.2	--
Lamoille #1	7100	2/27	31	7.8	1.9	9.8
Lamoille #2	7300	2/27	28	7.4	1.7	9.4
Lamoille #3	7700	2/27	30	8.5	4.3	12.2
Lamoille #4	8000	2/27	40	11.0	8.2	17.7*
Lamoille #5	8700	2/27	48	15.2	15.6	25.2*
Robinson Lake	9200	Report delayed			New Marker	
Ryan Ranch	5800	3/2	14	3.0	0.0	2.0
Trout Creek, Lower	6900	3/4	17	4.7	0.0	4.5*
Trout Creek, Upper	8500	Report delayed			9.3	19.0*
Midas	7200	Report delayed			0.0	4.7
Golconda #2	6000	2/27	16	5.0	0.0	
Buckskin, Lower	6700	2/25	25	6.9	T	8.4*
Buckskin, Upper	7200	2/25	19	5.5	2.4	7.9*
Granite Peak	7800	2/26	24	7.2	8.4	10.6
Lamance Creek	6000	2/26	28	3.5	0.0	8.5*
Martin Creek	6700	2/25	25	6.6	T	8.2

# SNOW SURVEY & WATER SUPPLY FORECAST

AUSTIN & EUREKA S.C.D's., CHURCHILL, EUREKA  
& LANDERS COUNTIES, NEVADA

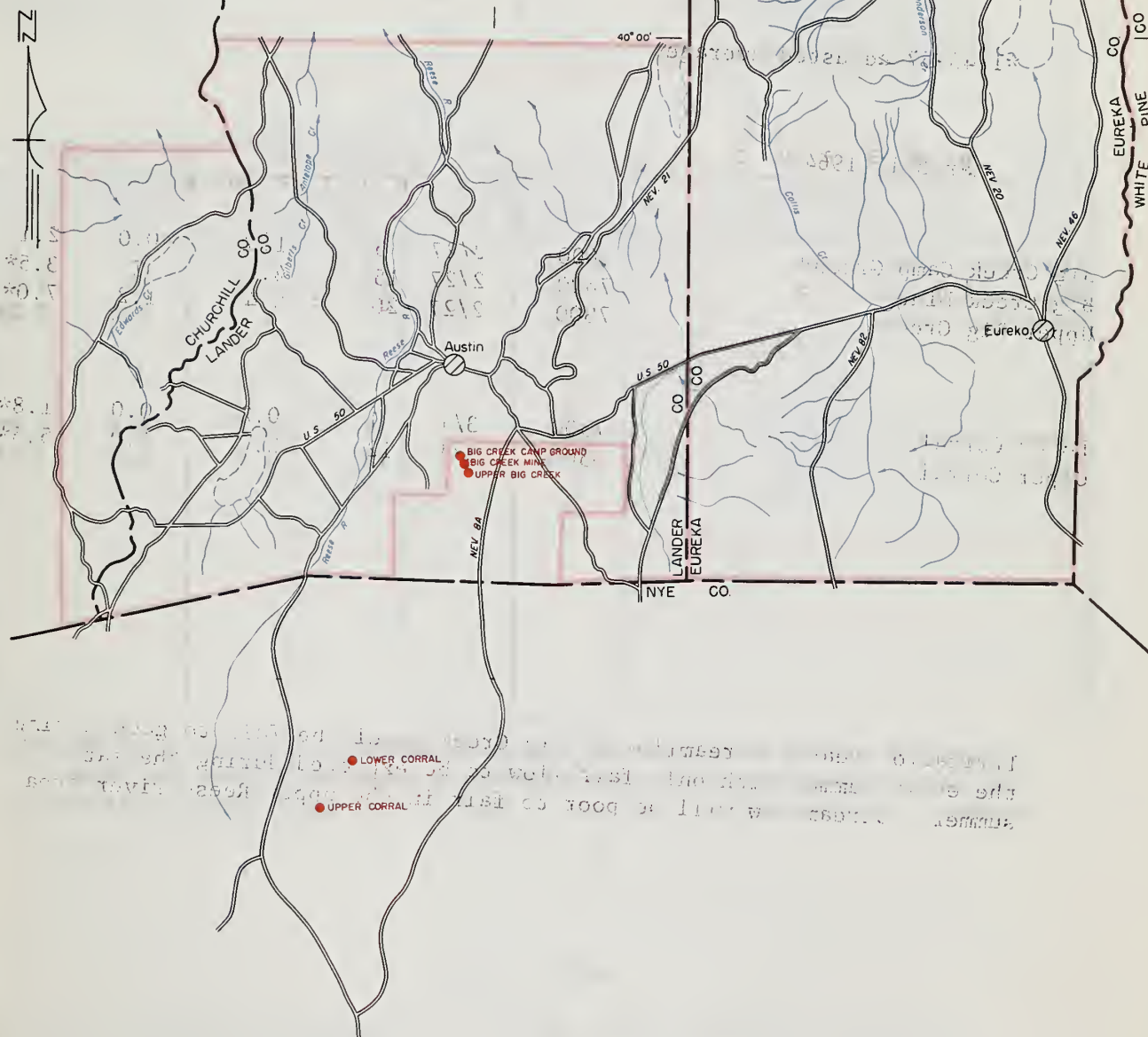


LOCATION MAP

## LEGEND

- Watershed Boundary
- S. C. District Boundary
- County Boundary
- ▲ Forecast Point
- Snow Course

8 0 8 16  
SCALE IN MILES



MARCH 1, 1964

Snow surveys in the Austin-Eureka area indicate a near normal snow pack. The Big Creek snow courses south of Austin are 86 percent of the March 1, 1943-57 average. Further south the Corral courses in the headwater of Reese River are only 36 percent of average.

Plate 13

(over)

## STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	AVERAGE

## APRIL - JULY RUNOFF (1,000 Ac. Ft.)

FORECAST POINT	FORECAST THIS YEAR	MEASURED	
		LAST YEAR	AVERAGE

## NOTE:

All averages based on 1943-1957  
15 year period. The forecast period  
is from April 1 through July 31.

\*1943-57 adjusted average

## SNOW

March 1, 1964

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
					LAST YEAR	AVERAGE
Big Creek Camp Ground	6600	2/27	5	1.5	0.0	2.1
Big Creek Mine	7600	2/27	15	4.0	T	3.5*
Upper Big Creek	7800	2/27	20	5.4	1.2	7.0*
Lower Corral	7500	3/1	1	0.2	0.0	1.8*
Upper Corral	8500	3/1	12	2.4	0.0	5.5*

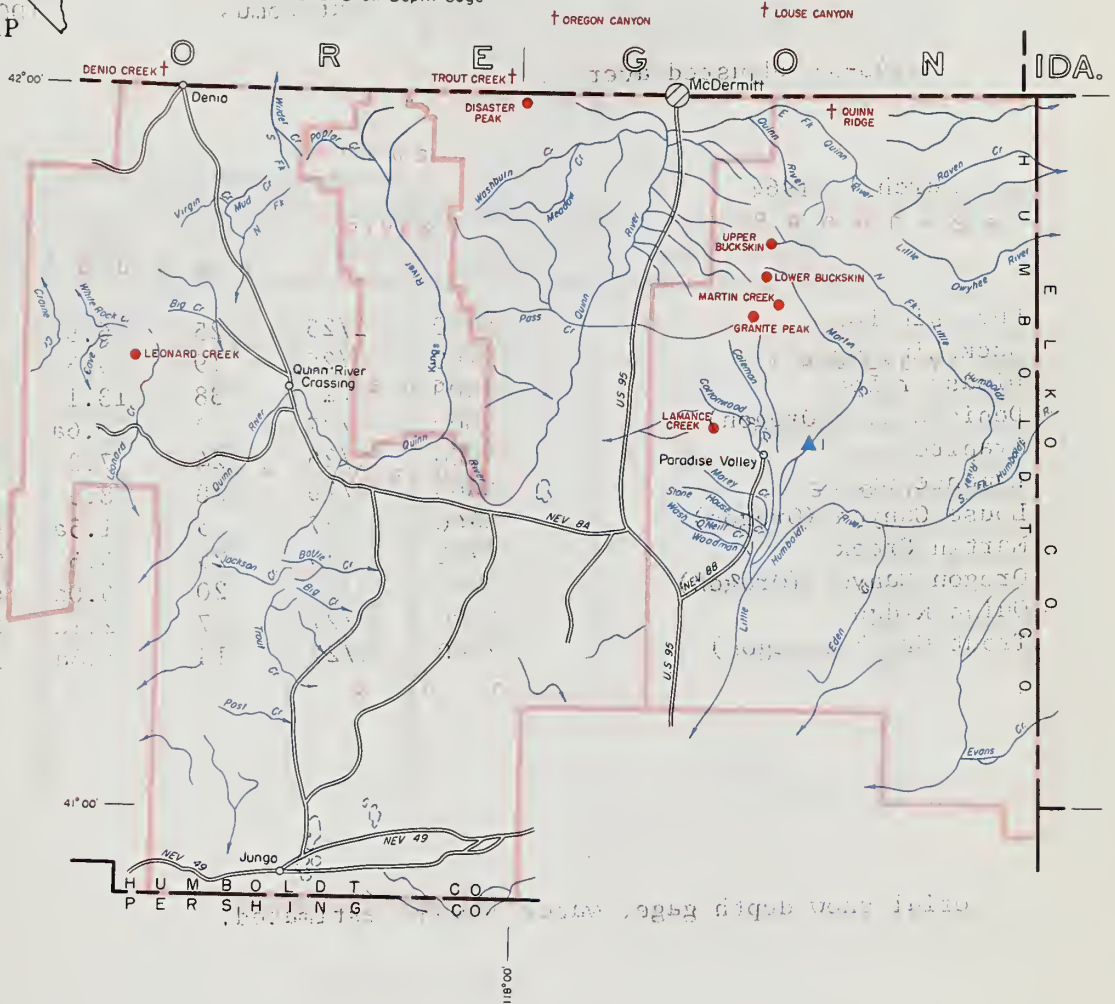
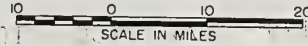
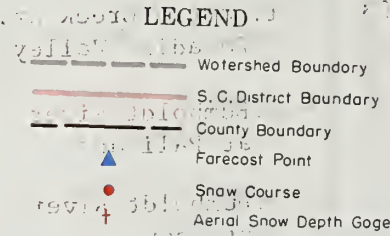
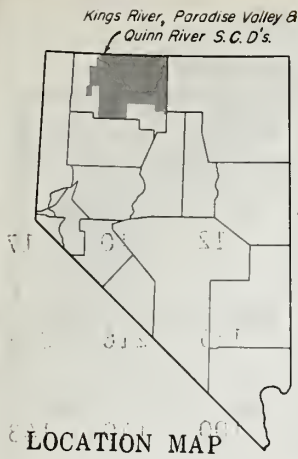
Irrigation season streamflow on Big Creek should be fair to good during the early summer with only fair flow to be expected during the late summer. Streamflow will be poor to fair in the upper Reese river area.

(1000)



# SNOW SURVEY & WATER SUPPLY FORECAST

KINGS RIVER, PARADISE VALLEY & QUINN RIVER S.C.D.'s,  
HUMBOLDT COUNTY, NEVADA



MARCH 1, 1964

The March 1 mountain snowpack in the Kings River, Paradise Valley and Quinn River SCDs' is 82 percent of average.

Streamflow during the April-July period will be fair to good this year if spring precipitation is near normal. Martin Creek near Paradise Valley is forecast to flow 12,000 acre feet or 71 percent of average during the April-July period. Other streams in the Santa Rosas should have flows similar to Martin Creek.

Plate 14

## STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	AVERAGE
Rye Patch	179	79	80	103

## NOTE:

All averages based on 1943-1957  
15 year period. The forecast period  
is from April 1 through July 31.

\*1943-57 adjusted average

## APRIL - JULY RUNOFF (1,000 Ac. Ft.)

FORECAST POINT	FORECAST THIS YEAR	MEASURED	
		LAST YEAR	AVERAGE
1.Martin Creek nr. Paradise Valley	12	10	17
2.Humboldt River at Palisade	155	216	225
3.Humboldt River at Comus	100	140	143

## SNOW March 1, 1964

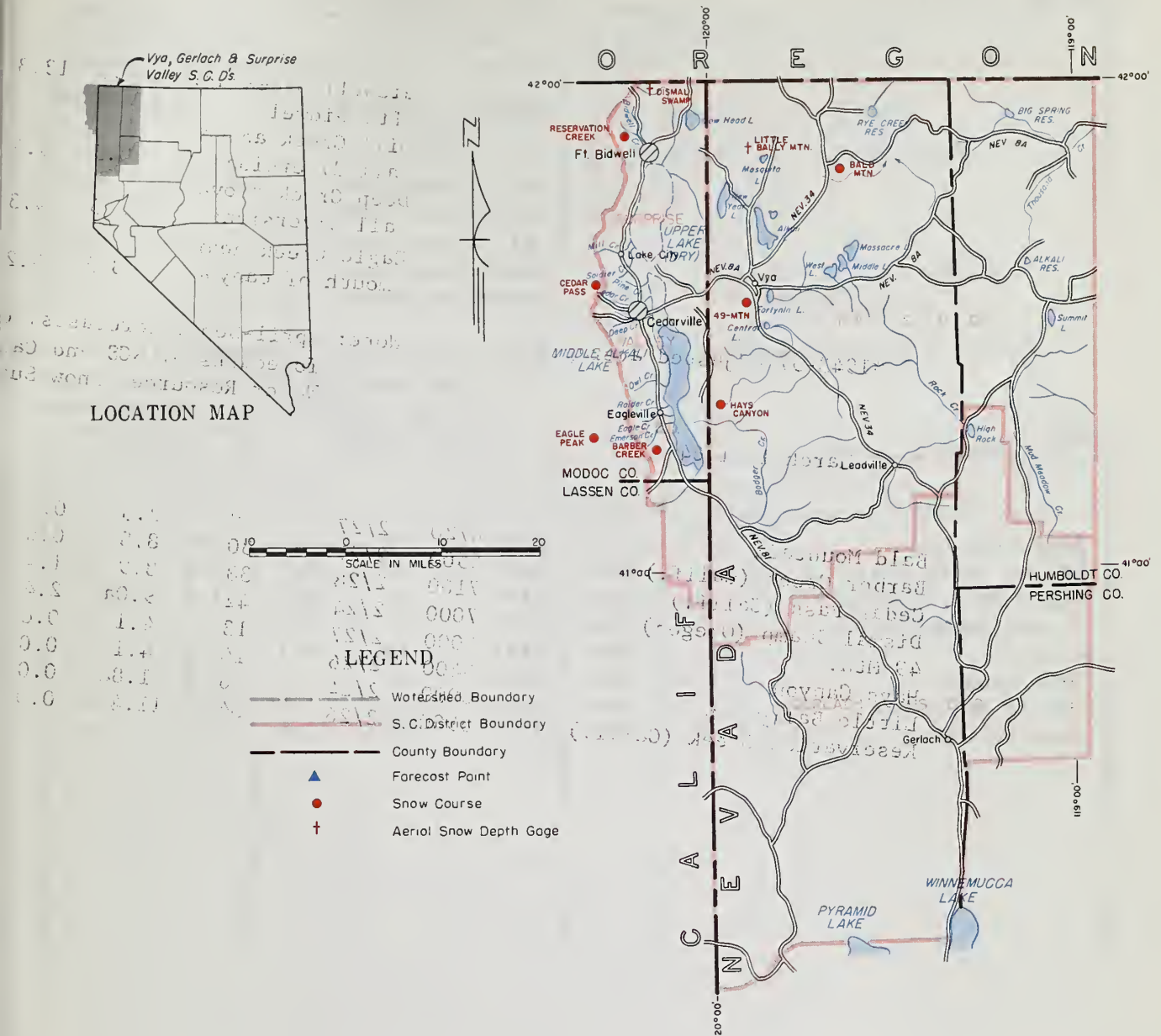
SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	ELEVATION				LAST YEAR	AVERAGE
Buckskin, Lower	6700	2/25	25	6.9	T	8.4*
Buckskin, Upper	7200	2/25	19	5.5	2.4	7.9*
Disaster Peak	6500	3/2	38	13.1	0.0	14.5*
Denio Creek (Oregon)	6000	2/27	2	0.6a	0.0	--
Granite Peak	7800	2/26	24	7.2	8.4	10.6
Lamance Creek	6000	2/26	28	8.5	0.0	8.5*
Louse Canyon (Oregon)	6440	2/27	5	1.5a	0.0	--
Martin Creek	6700	2/25	25	6.6	T	8.2
Oregon Canyon (Oregon)	7240	2/27	20	6.0a	0.9a	--
Quinn Ridge	6300	2/27	7	2.1a	0.0	--
Trout Creek (Oregon)	7800	2/27	18	5.4a	3.6a	--

a Aerial snow depth gage; water content estimated.

The forecast for the April-July period is 12,000 ac. ft. of runoff in the Rye Patch area, which is 82 percent of average. The forecast for the April-July period is 155,000 ac. ft. of runoff in the Humboldt River area, which is 71 percent of average. The forecast for the April-July period is 100,000 ac. ft. of runoff in the Humboldt River area, which is 71 percent of average. The forecast for the April-July period is 12,000 ac. ft. of runoff in the Rye Patch area, which is 82 percent of average. The forecast for the April-July period is 155,000 ac. ft. of runoff in the Humboldt River area, which is 71 percent of average. The forecast for the April-July period is 100,000 ac. ft. of runoff in the Humboldt River area, which is 71 percent of average.

# SNOW SURVEY & WATER SUPPLY FORECAST

## VYA & GERLACH S.C.D.'S., NEVADA and SURPRISE VALLEY S.C.D., CALIFORNIA



MARCH 1, 1964

Surprise Valley water users will have a below average irrigation season water supply this coming spring and summer. Coordinated forecasts of the California Department of Water Resources and Soil Conservation Service Snow Survey Units indicate that April-September, 1964 streamflow will be 60 percent of average.

Water content of snow in the Surprise Valley and Vya SCD's is below normal for this time of year in the 60-65 percent of average range.

October, 1963-February, 1964 precipitation at Cedarville was 4.19 inches compared to an average of 7.56 inches.

Streamflow can be expected to drop off markedly in late May or early June unless summer precipitation proves to be above normal.



## STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	AVERAGE

## NOTE:

All averages based on 1943-1957  
15 year period. The forecast period  
is from April 1 through July 31.

\*1943-57 adjusted average

## APRIL - JULY RUNOFF (1,000 Ac. Ft.)

FORECAST POINT	FORECAST THIS YEAR	MEASURED	
		LAST YEAR	AVERAGE
Bidwell Creek nr. Ft. Bidwell	9.5	13.3	16.0*
Mill Creek above all diversions	3.5	5.5	6.1
Deep Creek above all diversions	2.5	4.3	4.2
Eagle Creek near mouth of canyon	3.5	5.2	5.8

Note: April-Sept. forecasts. Coordinated  
forecasts of SCS and Calif. Dept.  
Water Resources Snow Survey Units

## SNOW

March 1, 1964

SNOW COURSE		CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
					LAST YEAR	AVERAGE
NAME	ELEVATION					
Bald Mountain	6720	2/27	9	2.3	0.0	3.3
Barber Creek (Calif.)	6500	2/27	30	8.8	0.0	--
Cedar Pass (Calif.)	7100	2/28	38	8.9	1.4	14.7
Dismal Swamp (Oregon)	7000	2/24	42	9.0a	2.4	--
49 Mtn.	6000	2/27	13	4.1	0.0	--
Hays Canyon	6400	2/26	14	4.1	0.0	--
Little Bally Mtn.	6000	2/24	6	1.8a	0.0	--
Reservation Creek (Calif.)	5900	2/26	34	11.4	0.0	--

a Aerial snow depth gage; water content estimated.

## Agencies Cooperating in Collecting Data Contained in this Bulletin

### FEDERAL

- Agricultural Research Service
- Army
- Bureau of Reclamation
- Fish and Wildlife Service
- Forest Service
- Geological Survey
- Navy
- Soil Conservation Service
- Weather Bureau

### STATE

- California Cooperative Snow Surveys
- California Department of Water Resources
- Colorado River Commission of Nevada
- Nevada Association of Soil Conservation Districts
- Nevada Cooperative Snow Surveys
- Nevada Department of Conservation & Natural Resources
  - Division of Water Resources
  - Nevada State Forester-Firewarden
- Oregon Cooperative Snow Surveys
- University of Nevada
- White Mountain Research Station, Univ. of California

### PRIVATE

- Amalgamated Sugar Company
- Kennecott Copper Corporation
- Nevada Irrigation District
- Owyhee Project North Board of Control
- Owyhee Project South Board of Control
- Pacific Gas & Electric Company
- Pershing County Water Conservation District
- Sierra Pacific Power Company
- Squaw Valley Development Company
- Truckee-Carson Irrigation District
- Virginia City Water Company
- Walker River Irrigation District
- Washoe County Water Conservation District

Other organizations and individuals furnish valuable information for the snow survey reports. Their Cooperation is gratefully acknowledged.

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